

THE CALCUTTA REVIEW.

MARCH, 1859.

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2. *Journal of the Asiatic Society*, Bengal.
3. *M. S. S. Field Books of* LIEUT. HUGH MORRIESEN, *of the 4th Regiment Bengal Native Infantry, and* LIEUT. W. E. MORRILSON, *Bengal Engineers; Surveyors of the Soonderbuns.* 1812—1818.
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The Delta is intersected from North to South by many broad rivers, and by endless creeks running one into the other filled for the most part with salt water where near the sea. This tract of land, in form resembling the Greek letter Delta, occu-

pies approximately 28,080 square miles of superficial area, or double the area of the Delta of the Nile; measuring from West to East, or from the right bank of the Hooghly river opposite to the Saugor tripod on the South West point of Saugor Island, to Chittagong it is 270 miles in width; presenting to the Bay of Bengal a series of low, flat mud-banks, covered at high water and dry at low water; a few miles from low water mark commence mangrove swamps, a little further inland trees appear, and lastly cultivation; the nearest cultivation in the central portion of the Delta being forty-seven miles from the sea. In the sea front of the Delta there are nine principal openings having a head stream, that is, having water flowing direct from the Ganges or from the Megna or Brahmapooter they are 1, The Ganges; 2, the Megna or Brahmapooter; 3, Horinghatta; 4, Pussur; 5, Murjatta or Kagga; 6, Barapunga; 7, Mollinchev; 8, Roy-mungul or Juboona; 9, Hooghly. Besides these large rivers there are numerous openings, having no head stream, being mere salt water tidal estuaries; these openings or headless rivers are the deepest as no silt or deposit is poured into them from the higher lands.

A straight line traced along the coast of England from Dover to the middle of Cornwall, or twenty-five miles West of Plymouth, and each end of this line, joined by other lines at Blackburn in Lancashire, twenty-two miles North of Manchester, or 208 miles North of this base line, would pretty correctly represent the extent of the Gangetic Delta, that is excluding the inland branching arms or narrow slips of alluvion that extend up the beds of the Brahmapooter and Soorina rivers, and would include the whole or portions of twenty-nine counties of England, a portion of Wales, and half the Bristol Channel.

The Soonderbun forest occupies about 8,000 square miles, which may be represented by that portion of the coast lying between Plymouth and Chichester, or one hundred and fifty-three miles East and West, and reaching as far North as Gloucester or eighty miles from the sea, and occupying the counties of Wiltshire, Dorset, the half of Hampshire, Somersetshire, the half of Devonshire, and the half of Gloucestershire. It is of this tract only that we intend speaking. The Northern, or cleared portion of the Delta, is highly cultivated and densely populated, supporting 420 souls upon each square mile, or nearly 5,000,000 inhabitants; the Southern portion on the contrary is occupied by extensive swamps and dense forests, and what few inhabitants there are, live in boats, not daring to venture on shore by day on account of the numerous tigers, nor by night on account of the fatal miasma, exposure to which is almost certain death.

The Soonderbuns take their name from two Hindee words, meaning the Beautiful Forests, and in whatever light we regard them, whether as a tract of country possessing an abundant Pachydermatous Fauna, or a flora peculiar to itself, whether we look at it as the stronghold of gigantic and destructive Saurians, voracious sharks and peculiar fish; whether as a tract of country of the most beautiful aspect, but at the same time most fatally pestilential; we must still view it as a curious and an anomalous tract, for here we see a surface soil composed of black liquid mud supporting the huge rhinoceros, the sharp-hoofed hog, the mud-hating tiger, the delicate and fastidiously clean spotted deer, and nourishing and upholding large timber trees; we see fishes climbing trees; tides running in two directions in the same creek and at the same moment; we see wild hog and tigers—animals generally avoiding water, swimming across the broadest rivers as if for amusement; in one creek a dead calm, in the next a raging sea; in some creeks the abundance of insect life is overpowering, in others close by, not a living creature is to be seen; some creeks are deadly to sleep in, others perfectly free from miasma; some are dry at low water, in others and those contiguous, no bottom can be found at ten fathoms; in one, all is fog and doubt, in the next, all is in the brightest sunshine; and many other anomalies present themselves, all rendering the Soonderbuns a spot of much interest, offering as they do so many subjects for investigation and research. Most travellers in passing through this labyrinth of interminable forest, mud and water, become exceedingly wearied with the monotonous appearance of the banks of the rivers and creeks, and are only too glad when they escape into the open and cultivated northern parts of the Delta, where all the breadth of the land is one vast sheet of rice cultivation.

Dr. J. D. Hooker in his interesting Himalayan journal, Vol. II. page 340, remarks upon several very anomalous circumstances connected with the Eastern portions of the Delta:—

“The total breadth of the Delta is 260 miles, from Chittagong to the mouth of the Hooghly, divided longitudinally by the Megna, all to the West of that river presents a luxuriant vegetation, while to the East is a bare muddy expanse, with no trees or shrubs but what are planted. On the West coast the tides rise twelve or thirteen feet, on the East, from forty to eighty. On the West, the water is salt enough for mangroves to grow for fifty miles up the Hooghly; on the East, the sea coast is too fresh for that plant for ten miles South of Chittagong. On the West, fifty inches is the Cuttack fall of rain, on the East, 90 to 120 at Noacolly and Chittagong, and 200 at Arracan. The East coast is annually visited by earthquakes, which are rare on the West; and lastly,

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the majority of the great trees and shrubs carried down from the Cuttack and Orissa forests, and deposited on the West coast of the Delta, are not only different in species, but in natural order, from those that the Fenny and Chittagong rivers bring down from the jungles."

"The Cuttack forests are composed of Teak, Sal, Sissoo, Ebony, Pentaptera, Buchanania, and other trees of a dry soil, and that require a dry season alternating with a wet one. These are unknown in the Chittagong forests, which have Jarool, (*Lagerstroemia*) Mesna, Dipterocarp, Nutmegs, Oaks of several kinds, and many other trees not known in the Cuttack forests, and all typical of a perennially humid atmosphere."

The soil of the Soonderbuns is composed superficially of a black vegetable mud, supporting a tangled mass of tropical vegetation growing down to the water's edge, and mostly overflowed by every spring tide; the black mud alternates with bands of sand, but nowhere have we seen the sand forming the superficial stratum. The constant addition to and renewal of the soil, the first by deposition, the latter by the abundance of decaying animal substance found on its surface in the form of dead molluscæ, annelidæ, larvæ and exuvæ of insects that fall from the forest trees, affords to the crowded forests a never-ending feast, no single foot of ground being disengaged. All is occupied by a luxuriant growth of Soondree trees, beautiful in form and foliage as their name implies, also Sonneratia, Nipa Palms, Banian, Peepul and other trees with an abundant undergrowth of liliacæ, weeds and plants. A section through the Soonderbun soil, as lately ascertained by boring, shows how ancient is the soil upon which this beautiful forest grows; it tells of wonderful changes in the face of the once deep valley now filled up by the Deltaic alluvion, hundreds and hundreds of feet in depth, when the ocean sweeping round the base of the Himalayan mountains covered what is now the valley of the Ganges, and joined the sea at the mouths of the Indus.

The old idea, that the Soonderbuns were at one time densely populated, and that cities flourished where now liquid mud a few inches above the mean sea level alone is to be found, is doubtless founded on fact; that the surface of the Soonderbuns has sunk more than once below the level of the ocean there can be no doubt, as will be explained further on; that they will ever be re-populated in their present state is highly doubtful; that the present forest will ever be destroyed by clearance is also very doubtful, as the present Northern limit of forest closely represents the Southern limit of fresh water in the North Eastern monsoon, or when the salt water is at its lowest level.

After a careful perusal of all available histories connected with the Soonderbuns and of the neighbouring countries, and a diligent search as far as circumstances would allow; we

cannot see or find any grounds for supposing that that portion of the Soonderbuns, lying between Saugor Island on the West, and the Horinghatta river on the East, and extending from the sea to Issureepoor on the Juboonah which falls into the Roy-mungul, has ever been inhabited. Fresh water tanks, dug either by the salt-makers or by pirates do appear on the banks of many of the rivers, a few temples or their remains have also been discovered, but only in the Northern portions of the Soonderbuns. In lot No. 129 that has been lately cleared and occupied by a village of Native Christians we remarked baked bricks, remains of buildings, fruit trees not indigenous to the country, and a large but shallow tank, all evidences of former occupation, but these remains are close upon the water's edge; and nowhere in the interior of this extensively cleared lot, have any other traces of man's occupation of the land appeared far removed from the river, or from where the usual salt-works would be carried on.

In the Island of Saugor, which lies upon the extreme edge of the Deltaic basin, consequently lying higher than the centre of the Delta, the remains of tanks, temples and roads are still to be seen, showing that it was once more densely populated than it is now, and native history informs us that Saugor Island has been inhabited for centuries. During the operation of clearing Saugor Island in 1822 to 1833, and later when clearing away the jungle for the Electric Telegraph in 1855-56, remains of buildings, tanks, roads and other signs of man's former presence were brought to light. Again upon the Eastern portions of the Soonderbuns, where the country has been cleared of forest, mud-forts are found in good numbers, erected most probably by the then occupiers of the soil to ward off the attacks of the Mughls, Malays, Arabs, Portuguese, and other pirates who in times gone by, that is, about A. D. 1581, depopulated this part of the country. The Mughls even advanced so far to the Westward as to depopulate the whole country lying between the river Horinghatta and the Rabnabad Channel, but we know of no trace of the land having been occupied further to the Westward of the Horinghatta.

If the central portions of the Soonderbuns were ever occupied, and at the present day they can only boast of a black semi-liquid mud surface, washed by most spring-tides and by every cyclonic wave, then must we come to the conclusion that the whole country has subsided, and that all buildings and masonry, and indeed all traces of human beings ever having lived and flourished on such a spot, must have sunk at the same time into the soft soil and disappeared. Rennell says, (1788 A. D.)

"In some ancient maps and books of travels, we meet with a city

named Bengalla; but no traces of such a place exist. It is described as being near the Eastern branch of the Ganges, and I conceive that the site of it has been carried away by the river: as in my remembrance a vast tract of land has disappeared thereabouts. Bengalla appears to have been in existence during the early part of the last century."

If we consider the unsubstantial nature of the foundation of the Soonderbuns, which, at the distance of only one hundred and twenty feet from the surface, consists of a bed of semi-fluid sand forty feet in thickness, and then remember the terrible convulsions that have at different periods shaken the Delta to its deepest foundations, we must not be surprised to find that the liquid mass, unable to support the superincumbent weight, has repeatedly bulged out seaward, reducing the level of the Delta, submerging whole forests, together with their fauna and flora. That forests now lie under the Soonderbuns we have seen with our own eyes; in excavating a tank at the new town of Canning at the head of the Mutlah, large Soondree trees were found standing as they grew, no portion of their stems appearing above ground. Their numbers may be imagined when we state, that in a small tank only thirty yards across, about forty trees were exhumed, ten feet below the surface of the country, their timber undecayed, showing that no very great period of time has passed over their submergence. If the present level of their roots could suddenly become the level of the country, the whole Soonderbuns would be under water. At a lower level than these trees, beds of a peaty mass composed of decayed and charred wood is pierced in Calcutta, Hooghly, Dunn-Dum and elsewhere, at a depth varying from eight to eighty feet. At Dunn-Dum we have pierced it in digging a well at nine feet, and a little further to the East of the station at the end of the Artillery range in excavating a tank in a Baboo's garden the same stratum was pierced at twelve feet.

The catalogue of earthquakes that have shaken the Delta is a long one, though only extending over a little more than one hundred years. Captain Baird Smith enumerates, in his Memoir of Indian Earthquakes, one hundred and sixty-two distinct earthquakes between the years 1800 and 1842; many of these convulsions were felt in the Delta. Captain Baird Smith likewise refers his readers to an interesting account of a great storm and earthquake that devastated Calcutta in 1737, published in the *Gentleman's Magazine* printed in 1738-39, which runs thus:—

"In the night, between the 11th and 12th October 1737, there happened a furious hurricane at the mouth of the Ganges which reached 60 leagues up the river. There was at the same time a violent earthquake

which threw down a great many houses along the river side : in Gollotta (Calcutta) alone, a part belonging to the English, two hundred houses were thrown down, and the high and magnificent steeple of the English Church sunk into the ground without breaking. It is computed that 20,000 ships, barks, sloops, boats, canoes, &c., have been cast away ; of nine English ships then in the Ganges, eight were lost, and most of the crews drowned. Barks of 60 tons were blown two leagues up into land over the tops of high trees : of four Dutch ships in the river three were lost with their men and cargoes ; 300,000 souls are said to have perished. The water rose forty feet higher than usual in the Ganges.

The steeple of the Church was described to have been lofty and magnificent, and as constituting before this period the chief ornament of the settlement.

Upon the 11th of November 1842 occurred a severe earthquake of which Calcutta appeared to be the centre of emanation ; the shocks extended to Darjeeling in the Himalayah mountains or 300 miles North ; to Chittagong or 250 miles on the East ; and to Monghyr or 210 miles on the West ; it was also felt on board the *Agincourt*, seventy miles South of the Floating Light.

That the surface of the Soonderbuns has more than once sunk below the level of the ocean cannot be doubted ; the evidences of subsidence are too palpable to be misunderstood, and we know also that the whole coast from Cape Negrais to Akyah on the Eastern coast of the Bay of Bengal is now undergoing the process of upheaval. This fact was brought to notice in 1840, by means of the nautical surveys of the Brig *Childers*, when engaged on the lowest coast of Arracan. From these surveys

" It appears that the Island of Reguain or Flat Island, as well as all the other islets and rocks on that part of the coast of Arracan, is undergoing a process of upheaval. The whole coast from Akyah to Cape Negrais, is indented by deep and narrow gulfs, similar to the fiords of Scandinavia. This District lies within the prolongation of the great volcanic band of the Sunda Islands, which extend from Java to Sumatra, Barren Island and Narcondam : and indeed all the Islands on the coast of Arracan bear evident marks of subterranean fire. In the Island of Cheduba alone, 300 miles South East from the Sandheads, in latitude 18.51 North, Longitude 93.28 East there are two mud volcanoes which rise to a height of from one hundred to two hundred feet. This line of upheaval is in the direction of N. W. by N., to S. E. by S. It is one hundred geographical miles in length, and varies in breadth from twenty miles to a very narrow strip of islets and rocks. The upheaval has been greatest in the middle of the line. At the Tevibles it was 13 feet ; at different parts of the N. W. reefs of Cheduba 22 feet ; at the North point of the Island 16 feet ; at the middle on the West coast 13 feet ; at the South end 12 feet ; and the Islands South of Cheduba to Foul Island 9 to 12 feet. The first symptoms of upheaval appeared about the year 1750 or

1760, on the occurrence of a great earthquake by which the sea was driven over the land and the effects of which were felt as far as the City of Ava. An earthquake is said to have occurred one hundred years earlier, and the inhabitants believe that a similar phenomenon occurs every century."*

In addition to the above we may state, that in the Island of Kyouk Phyou, 35 geographical miles North or nearer the Soonderbuns, a volcanic eruption took place suddenly, east of the station, at 6 P. M. in June 1852. The Calcutta Daily Papers say :

"On Christmas eve 1855 the Island was illuminated by a most magnificent sight, a huge column of fire was thrown up by the Volcano which lighted up the Island for miles around." "In April 1857 about 10 A. M. the Volcano was again in commotion."

Whilst the coast about Ramree and Reguain was rising, we find that it was sinking at Chittagong, for we learn from the Philosophical Transactions, Volume LIII., and from the Journal of the Asiatic Society, Volume X., pp. 351-433, as condensed by Sir James Lyell, that

"The town of Chittagong in Bengal, was violently shaken by an earthquake on the 2nd April, 1762, the earth opening in many places, and throwing up water and mud of a sulphureous smell. At a place called Bardavan a large river was dried up; and at Bar Charra, near the sea, a tract of ground sunk down, and 200 people, with all their cattle, were lost. It is said that sixty square miles of the Chittagong coast suddenly and permanently subsided during this earthquake, and that Ces-lung-Toom, one of the Mug mountains, entirely disappeared, and another sunk so low, that its summit only remained visible. Four hills are also described as having been variously rent asunder, leaving open chasms from thirty to sixty feet in width. Towns which subsided several cubits were overflowed with water; among others Deep Gong, which was submerged to the depth of seven cubits. Two volcanoes are said to have opened in the Seeta Cunda hills. The shock was also felt at Calcutta. While the Chittagong coast was sinking, a corresponding rise of the ground took place at the Island of Ramree and at Cheduba." (*See Map*)

As we are writing, the earthquake of the 24th of August, 1858, so distinctly felt in Calcutta on that day, is still being written about in the daily journals; it appears that Prome in Burmah, barely fifty miles East of the active volcanoes at Ramree and Cheduba, has suffered considerably, many pagodas have been shaken down and houses destroyed. A correspondent writing from Kyonk Phyou gives the following graphic description of this earthquake.

The 24th of August 1858; We had rain all yesterday and to-

day; in all the Pluviometer showed 7·3 inches. The weather was anything but cheerful. There was a heavy sombre ill-fated, nasty Arracan atmosphere pervading the whole of the Island. In the midst of this, the H. C. S. V. *Proserpine* had just undergone some repairs, and had started early in the morning for Akyab, but she had not made much way when certain indications in the Barometer induced the Commander, Captain Eales, to return and anchor again opposite the wharf. The day passed on drearily till between 4 and 5 P. M. a slight shaking of the floor was first perceptible (such as would be felt when a person heavily treads the boards of an old house,) this was suddenly followed by a rumbling noise and a vibratory motion of the ground, till the earthquake became so violent that the stoutest heart was obliged to fly his house. An officer writing to a friend on the occasion said, "I never in the whole course of my life felt anything like it. Indeed it was terrific in the extreme." The rocking of the earth had so confused many that for a while, they seemed as if they had lost the power of utterance. This state of the upheaving vibratory action of the earth from E. to W. lasted for about 2½ minutes, and then suddenly ceased, but in that short time the injury to property was extensive. No lives were lost but an idea may be formed by the following detail.

"The Magistrate, Captain F. W. Ripley, fled in the rains and with some friends, reached the beach—his house being perfectly new escaped unhurt. Several clocks were tossed off their brackets, and much valuable property completely smashed to pieces.

"The Military Officer, Lieutenant Evans, Commanding Detachment A. L. Battalion, had every thing belonging to him well shaken, his crockery and glass-ware and sundry articles on shelves knocked to pieces. His house, which is old, stood out bravely, though dreadfully mauled.

"The Medical Officer in charge of the Station, with his infant child and wife, ran out and sought shelter under a friendly tree, but all his articles of a fragile description shared the same fate as above.

"The Salt Superintendent, Mr. J. Hind, has had his house almost rendered untenable, and much property which cannot be named utterly destroyed. The School House, the Commissioner's Circuit bungalow, as also the Cutcherry much and seriously damaged. The Principal Jail gate lost its upper part of solid masonry. It is said that several pagodas have been upset and toppled down hill; the earth opened in varied places, and a peculiar bluish soft sandy matter devoid of any smell exuded from them, and finally the horrible scene closed by an eruption from the volcano. In fact such a fearful convulsion of

the earth has not been witnessed in Arracan by the oldest inhabitant.

"The Barometer was 29.82. The *Proserpine* was lying in 11 fathoms of water at the time of the shock, and the sensation felt by those on board was much like that experienced when running on a reef, and the vessel, it is said, trembled in every part of her."

From the South-Eastern point of Java in South Latitude 9° and East Longitude 114°, to Chittagong a distance of 3000 miles, are twenty-seven known active volcanoes and twenty-nine extinct ones. We know also that volcanic fire has frequently broken out from the bosom of the ocean opposite to Cheduba Island in Latitude 19° N.; and a few miles South of Pondicherry in 1757 A. D. a sub-marine eruption also took place. The volcanic fire near Cheduba as described to us by an eye-witness, rose into the air as a brilliant column of fire in 1846, illuminating the sea for miles; and if we cross the Delta to the Rajmahal hills which lie upon the Western flank, we meet with evidences of several outpourings of Lava having taken place at different epochs; and numerous Thermal springs close to these hills still proclaim the existence of lingering and smouldering, but deeply seated subterranean fires. Also twenty miles North of Chittagong is Seta Koond, a hot spring, the gaseous exhalations on the surface of which may be inflamed by the application of fire. With such disturbing powers flanking the Delta East and West, and with the assistance of numerous earthquakes that descend the Assam valley, traverse the Delta, and so pass on to the South, we must cease to marvel, if upon boring through the Deltaic soil, we find that its surface has more than once subsided below the ocean, only coming to the surface again to become once more covered by forest with an abundant tropical underwood, or as soon as the abundant alluvion brought down by the Ganges and Brahmapooter had filled up the shallow estuary, covering up at the same time the submerged forests, which with their underwood and drowned Fauna have served to form the beds of peat and bones that are everywhere found below the present surface.

In the year 1813 Lieutenant J. Colvin of the Engineers describes a bed of bones that was pierced at Dum-Dum as follows:—

"The soil is throughout a fine garden mould, from two to three feet thick:—there are no nalas visible, but Dum-Dum is nearly surrounded by the salt water lakes. The bones form a kind of regular line at intervals of a foot or two between them; they lie pretty near, their interstices filled with earth. They are so soft that the thickest bones break on endeavouring to separate them from

the earth. I cannot say to what animal they belong, but I am very sure there are no animals at Dum-Dum to which such large bones could have belonged, and I have never heard of any kind of deer near the place, the tree found at a depth of 18 feet below the ground; it seems to be *Soondry*, as is the case with most of the wood found in similar situations elsewhere.*

The following abstract Report of the Proceedings of the Committee appointed to superintend the Boring operations in Fort William, Calcutta, from their commencement in December 1835 to their close in April 1840, will be read with interest, showing as it does the immense chasma that has been filled with alluvion:—

“After penetrating through the surface soil to a depth of about 10 feet, a stratum of stiff blue clay 15 feet in thickness was met with. Underlying this was a light colored sandy clay, which became gradually darker in color from the admixture of vegetable matter, till it passed into a bed of peat at a distance of about 80 feet from the surface.† Beds of clay and variegated sand, intermixed with kunkur, mica, and small pebbles, alternated to a depth of 120 feet, when the sand became loose and almost semi-fluid in its texture. At 152 feet the quicksand became darkened in color and coarser in grain, intermixed with red water-worn nodules of hydrated oxide of iron, resembling to a certain extent the laterite of South India. At 159 feet a stiff clay with yellow veins occurred, altering at 163 feet remarkably in color and substance, and becoming dark, friable, and apparently containing much vegetable and ferruginous matter. A fine sand succeeded at 170 feet, and this gradually became coarser and mixed with fragments of quartz and felspar to a depth of 180 feet: at 196 feet, clay impregnated with iron was passed through, and at 221 feet, sand recurred, containing fragments of limestone with nodules of kunkur and pieces of quartz and felspar; the same stratum continued to 310 feet, and at 350 feet a fossil bone, conjectured to be the humerus of a dog, was extracted. At 360 feet a piece of supposed tortoise shell was found, and subsequently several pieces of the same substance were obtained. At 372 feet another fossil bone was discovered, but it could not be identified, from its being torn and broken by the boier; at 392 feet a few pieces of fine coal, such as are found in the beds of mountain streams, with some fragments of decayed wood, were picked out of the sand, and at 400 feet a piece of limestone was brought up. From 400 to 481 feet fine sand, like that of the sea-shore, intermixed largely with shingle, composed of fragments of primary rocks, quartz, felspar, mica, slate

As. Soc. Journ. Vol. II. P. 650.

This peat Dr. Falconer also found to contain seeds of the *Euryale ferox*, bones of birds and fish—seeds of *Cucumis Madraspatana* and another cucurbitaceous plant, leaves of *Saccharum Sara* and *Ficus Cordatolia*. Dr. Hooker says this “indicates a very different state of the surface at Calcutta at the date of its deposition than that which exists now, and also shows that the estuary was then much fresher.”—P. 341, Vol. II. *Himalayan Journal*.

and limestone prevailed, and in this stratum the bore has been terminated."*

Mariners, when approaching the Sandheads, having no land in sight, not even the height of a span to guide them, are obliged to trust entirely to their lead to inform them of their position. The sand that is brought down by the rivers hardens under the surface of the sea into a concrete, nearly as hard as rock, to touch upon which is fatal to any craft; but as the waters descending the rivers cut a subaqueous channel through this sand, the lead informs the pilot at once, whether he is on a bank or in a channel. Government Pilots are always cruising a few miles from the land, and at night continually burn blue lights to inform ships of their position.

The segregation of the sand from the mud is as follows; the fresher or heavy rains bring down from up-country vast quantities of sand and earth calculated at 40,000 million cubic feet, or nearly one-third of a cubic mile, rendering the waters of all the rivers opaque or of a dull yellow color. This body of water rushing along with great impetuosity reaches the sea; a contest immediately takes place between the rushing water and the advancing tides, the effect is to cause the heavier sand to subside which is done on either side of the river channels, forming the Sandheads, the finer particles of mud are driven back or up the rivers, and deposited upon the ten thousand Islands over which the tide sweeps; but, as all the finer particles of sand and mud are not thus thrust back upon the Soonderbuns, some portion of the alluvion is carried out to sea for forty, fifty, and even for sixty miles, where silently and slowly it finds its way to the bottom of the ocean, forming the soft, impalpable, purple mud so well known to pilots and others approaching the shores of India. At sixty miles from the Soonderbuns the ocean is free from any appearance of natant impurities, but nevertheless a certain amount of alluvial matter is subsiding to the bottom of the sea that number of miles from the land, that probably only commenced to sink at forty miles from the Soonderbuns.

Dr. Hooker alludes to the vast increase of the land on the Eastern flank of the Delta by the deposition of soil driven up by the waves; he says:—

"The mainland of Noacolly is gradually extending seawards, and has advanced four miles within twenty-three years: this seems sufficiently accounted for by the recession of the Megna. The elevation of the surface of the land is caused by the overwhelming tides and South-West hurricanes in May and October: these extend thirty miles North and South of Chittagong, and carry the waters of the Megna and Fenny back

over the land, in a series of tremendous waves, that cover islands of many hundred acres, and roll three miles on to the main land. On these occasions the average earthy deposit of silt, separated by micaceous sand, is an eighth of an inch for every tide; but in October 1848, these tides covered Sundeeep island, deposited six inches on its level surface, and filled ditches several feet deep. These deposits become baked by a tropical sun, and resist to a considerable degree denudation by rain. Whether any further rise is caused by elevation from below is doubtful; there is no direct evidence of it, though slight earthquakes annually occur; and even when they have not been felt, the water of tanks has been seen to oscillate for three quarters of an hour without intermission, from no discernible cause."

The great tidal wave taking its origin in the Southern ocean, rushes with impetuosity up the Bay of Bengal, breaking in an angry surf all along the Coromandel coast, and at times cutting off all communication between the shipping and the shore. This wave, when aided by the South West monsoon, and by the full or change of the moon, rushes with great impetuosity up the rivers of the Delta, where it is opposed by the freshes that descend from the up-country during the prevalence of the South West monsoon. The following description of the bore, taken from the *Illustrated London News*, is from the pen of the writer of this article:—

"The South-West monsoon has set in, bringing with it the dangerous tidal bore, which for three or four days at the full and change of the moon is seen racing up the Hooghly river at the rate of twenty miles an hour, dashing from side to side of the river according as the bends, or reaches deflect it in its course. Upon the approach of this wave a distant murmur is heard which soon turns into the cry *bān ! bān ! bān !* from the mouths of thousands of people, boatmen, sailors, and others who are always on the look out for this much dreaded wave. This cry is the signal for all sorts of craft to push out into the centre of the river, the only spot where the wave does not curl over and break. Should any boat or larger craft be caught in that portion of wave that breaks, instant destruction is inevitable. Numerous boats from the up-country provinces are lost every year from the crews being ignorant either of the existence of the bore, or from not knowing the correct position to take up so as to meet it. Ships at anchor in Calcutta though not exposed to the breaking portion of the wave frequently part their cables when struck with the wave.

"Standing on the shore during the rapid, rushing passage of the bore, it is a curious sight to see the lower portion of the river or that nearest to the sea, six or eight feet higher than the upper portion of the river, the tide rising that number of feet in an instant. The height of the bore in the Hooghly varies from five to twelve feet, it is exceedingly dangerous in some parts of the river, but more moderate in others; it never breaks on both sides of the river at the same time.

Deep water destroys its force, but shallow water, or a sand bank, brings out all its power and fury." Dr. Hooker mentions, that at the mouth of the Megna river, "the great object in the navigation is to keep afloat, and to make progress towards the top of the tide and during its flood, and to ground during the ebb in creeks where the bore (tidal wave) is not violent; for where the channels are broad and open, the height and force of this wave rolls the largest coasting craft over and swamps them."

The bore in 1782 flowed as far as Nuddea in the Hooghly, but at the present day it falls short of that place by many miles, not ascending much beyond Sookasagor. It reaches Dacca on the Boree Gunga, and Cuttee on the Horinghatta branch.

Amongst the calamities that have overtaken the Soonderbuns we must not omit to mention the great inundations caused by cyclones or hurricanes. About 1584 the tract lying between the Horinghatta and the Ganges, known as the Backergunge or Burrisal District, was swept by an inundation, succeeded immediately afterwards by an incursion of Portuguese and Mugh pirates. In June 1822 this same tract was again inundated, 10,000 inhabitants perishing and many houses and property destroyed. In 1737 A. D. happened the great Calcutta storm before quoted. In 1763 A. D. the river Megna rose six feet above its usual level at Lukhipoor. In 1833 A. D. Saugor Island was submerged 10 feet; the whole of the population, between 3000 and 4000 souls, together with some of the European superintendents perished; at Kedgerree a building 18 feet high was completely submerged. The *Duke of York*, East Indianan we saw high and dry in the rice fields near Fultah in the Hooghly. In 1848 A. D. the Island of Sundeeep was submerged.

In addition to these dangers to which the Soonderbuns are subject, we may add the history of a dreadful malady, common to all the forest tracts in India, known as *Jungle Fever*, and which reigns in full power in the Soonderbuns. If a person from the effects of fatigue or from constitutional liability, or from an incautious exposure to the night air in a jungle tract of country, becomes obnoxious to *Jungle Fever*, he becomes aware of the fact upon the 8th or 10th day after inoculation by a severe headache attacking him; the pain of which not only gives the sufferer an unearthly and ghastly look, but even disturbs during its duration the features of the countenance, twisting the eyeballs out of position. The second or third day of the headache induces a fearful delirium lasting from five to seven whole days and nights with occasional but short lucid intervals, at the end of which period the brain being heavily effused the patient dies; or if he rallies, his life for many days hovers in an uncertain between time and eternity. The slightest neglect or mis-

management of the patient's case proves fatal. We have known a fine young man die in the act of being raised in his bed by his nurse for the purpose of having his linen changed; this was done in kindness but against the strict injunctions of the medical man, who had ordered complete rest and no disturbance of the patient. The bad effects of Jungle Fever cling to a person for many years even after convalescence.

Major Rennell, the Surveyor General of India in 1788, says of the East India Company:—

"Whatever charges may be imputable to the managers for the Company, the neglect of useful science, however, is not among the number. The employing of geographers, and surveying pilots in India, and the providing of astronomical instruments, and the holding out of encouragement to such as should use them, indicate, at least, a spirit somewhat above the mere consideration of gain; but above all, the establishment of an office at home, for the improvement of hydrography and navigation, their judicious choice of a superintendent for it, reflects the highest honour on their administration; and ought to convince us, that in a free country, a body of subjects may accomplish what the state itself despairs even to attempt. For however surprising it may appear, it is nevertheless true, that the first maritime nation in the world has no good chart to direct its fleets towards its own coasts; nor even a criterion by which the public may be enabled to judge of the merit of a hydrographical production whatsoever. So that the soundings on the coast of Bengal are better known than those in the British channel, of which, no tolerable chart exists, even at this day (1787). During the late war, an East India ship owed her safety to the knowledge obtained from a chart of the mouths of the Ganges (made and published by order of the Company) into one of which she escaped from two French cruisers, and afterwards came into the Hooghly river by the inland navigation. We had just become masters of the hydrography of America, when we lost the sovereignty of it. I hope no one will think omniuously of our Indian possessions from this circumstance; but even if he does, he may make himself easy on the score of Great Britain."

In the years 1812—1818, that portion of the Soonderbuns lying between the Hooghly river and the Bara Punga, was surveyed by two young brothers, Lieutenants in the Honorable Company's army. Their names were Hugh Morrieson of the 4th Regiment Native Infantry, who is supposed to have died of Jungle Fever at Jessore contracted whilst surveying in this unhealthy tract; and W. E. Morrieson in the Bengal Engineers, who was killed by a grape shot upon the 3rd of January 1815, at a place called Jeetghur, in an unsuccessful attack upon the Goorkhas. By the kindness of Major Henry Landon Thuillier, the courteous Deputy Surveyor General of India, we have had access to the field books of these adventurous officers, and from them we

shall freely quote ; and as we do so we shall be able to show the dangers and difficulties encountered and overcome by these two brave young men, who were frequently up to their knees in mud with no secure foundation for their theodolites. Perplexed beyond measure we find them carrying on their work, and when about to take an angle after having fixed their instrument, we find the following occurrence noted in the field book :—

“ Just as the Theodolite was rectified, and we were about to take the first angle, a tiger made a great spring from somewhere into a bush, about six yards from us, and there we lost sight of him.”

Again, in another river, it is recorded.

“ Went on shore to take a Latitude, and as the bank was very muddy the dandies (sailors) pulled the dingy (canoe) up to the jungle close to the only dry spot where we were observing the sun. Both of us were much annoyed by the trembling of the mercury and abused the people around us for moving and shaking the ground, but they said they were perfectly quiet. Having finished the observation, one of the sepoys said there was a tiger close along side, that had been creeping up toward us, and for the last minute he and the animal had sat looking at each other ; we now heard a slight noise in the jungle, the two sepoys fired, and out-sprang a tiger and ran off ; he was only about 4 yards from us, he on one side of a bush whilst we were on the other. Had the musket snapped or the fire been delayed he would have been amongst us.”

Their night operations were not undisturbed for we find that “ whilst weighing anchor, the Pansway joined me and gave the report that just at the time the first rocket was left off, a tiger made an attack, but being alarmed at the noise of the rocket he retired till about 4 hours afterwards he again swam to the boat—the people fired upon him, he then began making a great noise, on which they cut the cable and made the best of their way against the tide.”

After this entry, Hugh Morrieson naively remarks “ I cannot corroborate one observation with another unless I give up a day ; for in the jungly parts I would not choose to go on shore for a star at night.” We should rather think not ; and yet in the most dangerous tigerish parts of the Soonderbuns, Lieutenant Morrieson met charcoal-burners and wood-cutters who had been located there for ten days in one place. Figueers or pseudo holy mendicants attend the wood-cutters to preserve them from the tigers, and the ceremony performed by these impostors is thus noted, but not described in the field book. “ I saw a company of wood-cutters performing a religious ceremony, asking the gods of the Soonderbuns at what place they might cut wood—they received for answer in another khal (creek) at some distance.”

It is evident our surveyors had no tiger charmers in their re-

tinue, for the entries in their field books of attacks made by these animals, either on the persons of their attendants or upon the boats, are very numerous; for instance, an entry dated 1812 runs as follows:—

“ Whilst the people were cooking their dinners on the bank of Saugor Island, a tiger sprung upon an old dandee, (sailor) One of my sepoys advanced with a hatchet (with which he had been cutting wood) and is said to have hit the tiger on the head, the blow however was fatal to himself, for the tiger left the old man who was not much hurt and carried off the sepoy.” Again,

“ Just as I was preparing to go on shore for a latitude, a dandee (boatman) was carried off by a tiger from a dingee (boat) which had gone near the shore to cut some wood ”

In the Roymungul river as night set in “ the guards in the ‘ pinnace got hungry, they set off in a pansway (small boat) to ‘ join their boat, and just as they reached it, a tiger sprang from ‘ the shore and made for them; after however expending 21 cartridges they succeeded in missing him and he made his escape.”

At half past 3 in the morning “ a tiger came on board a boat and killed my Jemadar after causing great alarm,” after this we find the following very natural remark:—“ the manjees to-day ‘ protested against returning to the jungles, both on account of ‘ the tigers, and their boats being much damaged by worms.” The protest it appears had but little effect, for soon after, they were aroused in the night, “ by a tiger making an attack ‘ upon one of the pansways. He had got his two fore paws on ‘ the side with his head and breast up in the boat, when the people set up a shout, he dropped and went off, several shots were ‘ fired by the different boats; we heard no more of him; he left ‘ the marks of his claws on the boat.”

These animals, although they claim the water as their territory, are not always successful in their attacks, but their land attacks are generally fatal, as we see in numberless cases recorded in the field books. Here is one. “ This day a man of the name of Gunga ‘ Ram, mianjee to one of the boats, was carried off by a tiger. ‘ The wind was high and the ebb having set in he could not reach ‘ the place he wished to anchor in, and as he was driven near the ‘ shore he went on the mud with the goon (tow-line) in his hand, ‘ all the other people on board advised him not to go, he had not ‘ been above a minute on shore when the tiger sprung upon him ‘ and carried him off.” The next day they “ dropped down to ‘ the spot where the tiger seized the mianjee but could see only a ‘ few feet marks.”

It is not only in the densest parts of the Soonderbuns that the tigers are so destructive and troublesome; but upon the outskirts of the forest where cattle or human beings can be obtained,
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ed do we also find these pests at full work, devouring all that comes in their way; "The natives have a great dread of this part (Bussunpoor on the North and Western Soonderbuns) on account of the tigers, several people having been carried away from Bankra." "Frequent attempts have been made to re-establish the villages of Kosbas and Syacottee but without effect, the settlers being always driven away by those disagreeable neighbours." On the edge of the jungle on the Pussur river the country was formerly much more cultivated; "but the tigers became so numerous the people left it; it is now partially cultivated only at Diggerazabad. During all seasons of the year the people say they shut themselves up about 5 o'clock in the evening and stir not out till the sun be well up. But in the rains the tigers come in numbers and at all hours of the day. The people are constantly carried off."

Surely this catalogue of persecutions by the wild beasts upon the unhappy Bengali should close, but they have other enemies to deal with, for we find the following remark at Eksurra, Hogla khal, Banstullah, &c. on the edge of the forest. "In the rains all this country is under water, the only communication between village and markets is by boats, the people make muchans (stages) inside their houses to keep themselves dry, and in this manner they are carried away in great numbers by the alligators."

The industry of the Soonderbun Bengali must be sorely tried; Lieutenant Morricson makes the following entry to account for the abundance of handsome timber (Soondree) that he observed in the Kurhuria creek

"Where I found two wood boats who explained the reason why the wood in the Talka khal is so fine;—there are so many tigers in it that the people cannot venture there, wood has been cut down and carried away, but a great deal that was cut they left; thinking themselves lucky in getting away out of the Nullah any how,"—and yet to this moment Calcutta is entirely supplied with fire-wood from this dangerous locality; again. "Found a great number of wood-cutters who informed me that five days ago they lost two men by tigers, exactly at the same time on each side of the river. The name of the uppermost khal (creek) of the two is Soona Mookkee, but that of the lower one has not been revealed to them in any of their dreams, which is the usual way. This place is thick of tigers and fine Soondree wood, there must either be one tiger watching our fleet or else there must be one at every khal (creek) we enter, but I rather think it is the same one following us; we have seen his feet marks on the bank of every creek we have remained one night

The surveyors also had several encounters with alligators; the story of one of which will be read with pleasure;—

"Observing a very large alligator on the bank we fired at him, he was wounded and after taking to the water he again came to the shore, we went in the pausway to him and put two balls into his head, on which he made a charge open mouthed at the boat but sunk from pain before he reached us, he was about 10 yards from us when he rose, we put two balls through his body aiming for his spine, he charged us again and got in below the boat apparently endeavoring to upset it, but not being able to succeed we lost him."

They however found the alligator dead on the shore on the morrow, "15 feet in length, very thick, and with a most enormous mouth," on opening "him we got the bangles, rings, and other ornaments of a woman out of him."

In the Roymungul river

"Having come to an anchor we saw a rhinoceros on the opposite side of the river drinking I crossed in a pausway, he allowed me to approach to within 30 or 40 yards, I fired at his head and put the ball through his cheek, he ran off into the jungle before I could get a second aim at him. On reaching the pinnacle I learnt from the party I had sent on shore that they had been successful in finding a tank of good water under the cocoanut trees, it was however surrounded by long grass and other jungle, the haunts of many rhinoceroses, they had made a regular bed in it. Being anxious to save a trip all the way to Chandcalley (in the North) for fresh water, I went on shore with an armed party carrying fire-brands with which we soon set the whole place in a blaze. I left it to burn out meaning to return in a day or two to try and fill our casks."

It further appears that the country at the mouths of the Mollinchev and Roymungul rivers is infested by rhinoceroses and deer, the whole ground being cut up by their feet.

A region such as the Soonderbuns, crowded as it is with savage wild animals both on the land and in its waters, and possessing as it does a pestilential climate for many months in the year, could hardly escape being invested by the heathen natives with supernatural traditions and marvellous stories, and for one only can we find space; it is taken from the field books.

"The people up in the cultivation told us that down near the mouths of the Mollinchev and Juboona, there is a palace, but the spot they could not mention, indeed there is a degree of fable attached to it, for they believe it to be inhabited; during the stillness of night the great drums of the palace and the bells may be heard, but in the day time no such noise can be noticed."

Man in conjunction with the beasts of the field, the monsters of the deep, and the malaria of the forests, has assisted in rendering the Soonderbuns a place of bad repute; for we learn from the not nearly exhausted field books that

"About this time four very large dingees larger than the pinnace, each having about 50 men on board, passed us at a prodigious rate. We reckoned them Dacoits (pirates, or robbers) from their appearance, and when we called to them they returned no answer, nor paid the least attention; it is very probable that may be a set of fellows going out to look for boats in distress, that have been separated from the regular fleets by stress of weather, and of course helpless against such a number of men."

The description of the wild beasts as extracted from the Field books of the brothers Morrieson, bearing date 1812—1818, is applicable to the state of the Soonderbuns in 1859; the line of cultivation may have been, since their day, pushed a few hundred yards further South, but the tigers to this day are as savage and as numerous as they were then; the alligators are as hungry and as cruel; and the rhinoceros as plentiful and as stupid; the deer still abound in herds, and pigs are found everywhere; but we are happy to say that all biped nuisances such as pirates, have been, under the continued and unceasing harrying of our Magistrates, completely cleared out of all the once pirate-infested rivers and creeks.

We take our leave of the Field books with regret, and in doing so we cannot refrain from giving the last entry made by Hugh Morrieson; it is dated the 28th February 1818 and is as follows:—

"I am now so ill that I can no longer carry on the survey, I have therefore got bearers to carry me by Dawk to the Station of Jessore."

There it is supposed he died; the deadly Jungle Fever had seized upon our bold surveyor.

The names of the rivers and creeks in the Soonderbuns are for the most part of Sanscrit, Hindoe or Bengalee extraction; the Mahomedans have named but few, the English none, unless the Hooghly, the most important but by no means the largest river, can be said to have been named by them. Most of the names allude to the Hindoo Gods and Goddesses, some to the trees most common on their banks, a few to the animals most numerous in their vicinity; all are named, well known, and frequented. The following few names with their meanings will give an idea of the good taste or otherwise of the namers of these rivers.

Brahmapootra.—The Son of Brahma, the creator of the world.

Megna.—"Meg" a cloud "na" not; the advice given by boatmen not to attempt the passage of this dangerous river if the weather is cloudy, or threatening.

Ganges.—"Gunga" The River, par excellence.

Ringhatta.—The deers' watering spot.

abound along the banks of this river.

Arapungassya.—Manufactory of punga or salt.

Porikhal.—Fairy creek.

Juboonā.—The sister of Jum, Hindoo God of hell.

• Bhuddur.—The gentle river.

Debeechur.—The alluvion or Island of Debee, the Goddess of hell.

Beeskhal.—The poisonous creek.

A slight glance at the fauna of the Soonderbuns may not be uninteresting. In the quotations from the Field books of the brothers Morriesson we have touched pretty freely upon the depredations caused by the tigers, we will now merely mention the names of the principal animals found in this tract, with a few interspersed anecdotes of some of the most remarkable ones. Of *Mammalia* we find the rhinoceros, hog, spotted deer, buffalo, bara singha or large stag, tiger, leopard, wild cat, otter, red monkey, jackal.

Ophidia;—Boa constrictors, cobra de capello, water-snakes, tree-snakes, kurait, sea serpents, and many others, besides, go-amp, lizards, scarlet crabs, shrimps and insects in abundance, not to forget mosquitoes that swarm in black clouds.

The rivers everywhere abound in delicious fish; amongst the curious fish may be mentioned the Anabas Scandens (Koece—Hindoostani) an ugly, voracious little fish about five inches in length, mottled brown and yellow. They may be seen hanging on to the mangrove stems by spines arranged along the margin of the gills, three and four feet above the level of the receding tide, from which elevated position they drop into the water by scores when disturbed by a boat or a steamer passing, or they may be seen floundering about upon the black mud where they lie in hundreds sunning their little ugly bodies.

The Periophthalmus is another ugly little mud fish found in great quantities on all the mud banks in company with the scarlet crab. Sharks are numerous in the Soonderbuns; the hammer headed shark, a frightful animal (*zygæna*), is also occasionally caught off the Sandheads.

• *Birds*;—adjutants of two kinds, one the common Ardea Gigantea, the other the marabout adjutant, from which is obtained the beautiful feathers bearing that name. Fishing and other eagles, vultures, kites, hawks, owls, minahs, doves, parroquets, fly-catchers, orioles, jungle fowl, woodpeckers, sandhoppers, egrets, waders, small and large spoonbills, one kind not much larger than a small snipe, pelicans, storks, paddy birds, herons, snipe and many other birds are found in abundance. Crocodiles, properly so called (Hind-Mugger-Koomeer) of enormous size are seen in every creek, in every river; they have a broad flattened muzzle with unequal teeth of a formidable size and shape, the

outline of the jaw, where the teeth are seen protruding interlockèd with each other, is a waving line giving to this ugly animal a fierce and cruel aspect. These animals varying in size from a span in length to 18 and 23 feet, are usually seen lying on the surface of the black mud basking in the sun; they sleep very soundly for we have seen a steamer going at full speed and making the usual splash and noise pass within ten paces of a sleeping crocodile without disturbing its slumbers. To a casual observer they resemble mud-covered logs of wood, and it is not until the large square and glittering scales which are of exceeding strength and beauty when closely examined, and the elevated and doubly dentelated ridge or crest that runs along either side of the tail, become visible, or are seen to glisten in the sun, that the shapeless mass is found to be a fierce, carnivorous and dangerous animal.

We have never seen the Gangetic Garial in the Soonderbuns; he appears to love the sweeter and, comparatively speaking, quieter waters of the upper rivers and their clean sand banks, where they may be seen in scores, lying with their mouths wide open, but for what purpose it is difficult to divine, unless it is to get rid of numerous small red filamentous worms that cluster about their fauces. The lower jaw being prolonged backward beyond the skull occasions the upper jaw to appear moveable, which it is when accompanied by the whole of the skull, or entire head, but not otherwise. We have been informed by an eyewitness, and one in whom we place implicit confidence, that he has seen a small brown bird alight upon the tongue of an open mouthed alligator, and pick these worms from the throat as he lay upon a sand bank in the Ganges. It is generally believed that the crocodile, or as it is termed in India the snubbed-nose alligator, always remains in fresh water; this is not the case, as they are found all along the Chittagong and Arracan coast, never far from the shore it is true, but still in bona fide salt water, where they are as dangerous as sharks.

In the rivers of the Delta where they flow through the cultivated portions of the country, stakes are driven into the bed of the river at the watering places, or ghauts, opposite to the villages, where the inhabitants may bathe in security and draw water for domestic purposes; but even this precaution is not always sufficient to ward off the attacks of the fierce crocodiles. The crocodile being an amphibious animal finds no difficulty, when pinched by hunger, in turning the flank of the stakes, and taking up his post within the enclosure, where he silently awaits his prey. A friend of ours, whilst surveying on the banks of the Gorace, was witness to a shocking occurrence in connection with these enclosures. A young Hindoo girl about 14 years old,

came to get a pitcher of water, and had hardly put her feet into the water, when a crocodile, who had been lying in wait inside the enclosure, rushed at the poor girl, seized her in his formidable jaws, scrambled up the banks of the river, holding the shrieking, struggling girl well up in the air by the middle of her body, and plunged heavily into the river outside of the stake. A smothered scream, a ripple upon the water, a few bubbles, and the frightful scene was closed.

A more daring attack by a Soonderbun crocodile than even the above, is well known. It occurred a few years ago at Koolna: a gang of ironed convicts were being inspected by the Magistrate prior to their being sent off to another and a more distant jail; the men numbering with their guards about fifty were drawn up in line on the raised embankment or levee of the river; the examination was proceeding, when a crocodile rushed up the bank, seized a manacled prisoner by the legs, dragged him from the ranks, and in a moment, and that before any assistance could possibly be rendered, had plunged into the river and disappeared.

It appears from some excellent tables prepared and printed by the Committee on the Drainage of Calcutta 1857, that the highest high water, being the highest rise of the river Hooghly spring tides during the freshes, or from July to September, from 1806 to 1835, was 20 feet 6 inches. In August 1856 neap tide rose 15 feet 6 inches, above the datum sill of the Kidderpore dock, and upon the 18th August 1856, spring tide rose to 22 feet 3 inches above the same datum.

In the dry season, the lowest fall of river spring tide at Calcutta, is to 1 foot 9 inches above the datum of Kidderpore dock; the neaps 2 feet 8 inches; whilst the tides in the Salt Lakes only fall to 7 feet 10 inches above datum.

Table Shewing the Relative heights of the River Hooghly and the Salt Water Lakes

| | | Dry weather, | | Dry weather, | | Ramy sea- | | Ramy sea- | |
|---------------|----------|--------------|----|--------------|---|-------------|---|-----------|----|
| | | springs | | neaps | | son springs | | son neaps | |
| River tide at | Lowest | 1 | 9 | 2 | 8 | 9 | 0 | 10 | 3 |
| Calcutta | Highest | 17 | 3 | 9 | 0 | 23 | 4 | 15 | 11 |
| Salt water | Lowest | 7 | 10 | | | 11 | 0 | | |
| Lake Tides, | Highest, | 11 | 6 | | | 12 | 0 | | |

The greatest rise of the Hooghly at Calcutta being 23.4; average spring 17.41. The greatest rise of the Salt Lakes being 12 feet. This is on the Western side of the Delta; how different from what occurs on the Eastern side, where the tides rise from forty to eighty feet.

It has been asked, but no one has yet answered the question,

why the Soonderbuns should not be, as has been Holland, reclaimed from the sea and occupied by man. Holland and the Soonderbuns are about on the same level, that is, they are not above the level of spring tides; but Holland which has only 123 miles of sea front, to the Delta's 270 miles, is well protected all along the greater portion of the coast of the North sea by a line of broad sand hills and downs, in some parts so high as to shut out the view of the sea, even from the tops of the church spires; the inhabitants have therefore only to dam the banks of the rivers penetrating into the country through these bulwarks to preserve the country from inundation. The Soonderbuns on the contrary has no defence whatever to seaward, not even an inch in height, every spring tide and every cyclone wave dashes its waters over the land, deluging the country with waves, the impetuosity and volume of which are unknown and unheard of in Europe; waves 30, 40 and even 60 feet in height have been known to rise in the Bay of Bengal, to dash over the highest trees, and to deluge the whole country for miles inland. The Soonderbuns in their present state can never be inhabited, they are too exposed to the fury of the Tropical Hurricanes that arise in the Bay of Bengal, and their unhealthiness is so great, from the stagnated air and corrupting vegetable deposits, that no human beings can ever hope to struggle against such fearful odds; but should this tract ever share in the upheaval that is now going on near Arracan and on the Tenasserim coast, well and good; rich would be the soil that would be brought under the plough, and great would be the population that would be found to occupy the Seaboard tract. Until that time arrives, we must be content to know, that the Soonderbun tract only forms a great, an inaccessible, and an impregnable defence to India towards the sea.

The very mud at the foot of the jungle, that mud that has just been stirred up by a large striped crocodile as he lazily slipped into the water, starting in his passage shoals of bull-headed perioptalmi or mud fish that lay basking in the sun, offers a bar to invasion, and has an interest attached to it. To know from whence it was brought is impossible, but we may conjecture, we may give way to fancy, and imagine its having once formed a part and portion of the snow-clad gneiss summit of Kunchinjunga, that in ages long past was precipitated from an elevation of 28,000 feet or nearly five and a half perpendicular miles down its steep flanks to the glaciers at its feet, probably crumbled down by an earthquake to mingle with the moraines, where acted upon by snow, sharp frosts, rain and sunshine, its sand and hornblende have been reduced to what we now see as mud; its heavier particles of quartz reposing under

the ocean at the Sandheads, a part and portion of the hard and dangerous sand banks that stretch away from the Soonderbuns for many a weary mile. Or this mud may have travelled from the flanks of Deodhunga, the lately elected monarch of the Himalayahs, 29,002 feet in height; or it may have been swept from the source of the Ganges, or from the source of the T. Sanpo or Brahmapooter, or from the high basaltic table land of Omurkuntuk, far South of the Gangetic valley; or it may have been a portion of an avalanche from the forked Donkia, in Tibet, the waters from which flow into the Teesta and so into the Brahmapooter. But wherever it has come from, let us be content to know that it has travelled far, and that it has undergone many a hard rub and many a hard blow, ere it was reduced to the soft black Soonderbun mud, upon which we just now saw the great Saurian reposing.

ART. II.—*Journal of an English Officer in India.* By MAJOR NORTH, 60th Rifles, DEPUTY JUDGE ADVOCATE GENERAL, AND AIDE-DE-CAMP TO GENERAL HAVELOCK, &c. London, Hurst and Blackett, 1858.

THE book now before us, purporting to be a record of Havelock's Indian Campaign, is a welcome addition to the list of works upon the Indian Mutinies, from which the future historian will have ample materials to guide him in the history of the Rebellion. Yet while welcoming this addition to our stock of information, we must confess that the history of Havelock's Campaign has yet to be written. We want one which shall supply us with an account of the varied life of that devoted band, and also furnish us with such a coup d'oeil of its engagements, as will enable us in some measure to appreciate its bravery and heroism under unheard of difficulties and dangers. A historian the force at one time possessed of no mean order, the noble and heroic Lieutenant Crump of the Madras Artillery, whose descriptions of some of Havelock's engagements leave nothing to be desired, but it was fated that this gallant soldier should meet an untimely end, while endeavouring to bring in his guns, the day after the rescue of the garrison of Lucknow by Havelock and Outram.

The first chapter of the book gives an account of Major North's journey from Calcutta to Allahabad, which we will dismiss without further notice. Reaching Allahabad some little time after the Mutiny, he gives a description of that masterpiece of treachery, and we are glad to see that he pays a well-merited tribute to Lieutenant Colonel Brasyer, C. B., then Lieutenant Brasyer, for his courage and tact. We fancy that as time rolls on, and facts can be estimated at their proper value by the dispassionate observer, it will be found that this brave man, this true soldier, was, to say the least, the saviour of Allahabad, and that had he not been there and acted with the firmness that he then did, the fortress of Allahabad, the key of the North West, would have fallen. And had that barrier to the progress of insurrection been broken through, mutiny, rapine, and murder would have enveloped the land from Delhi to Calcutta, and have made the reconquest of the country commence at the City of Palaces, instead of at the holy City of Prag.

We were not present at the Mutiny, but arrived in Allahabad shortly afterwards, some nine days before Major North, and then the scene was anything but enlivening—the river deserted, not a boat to be seen, the steamers moored close under the walls of the fort, a few Irregular Cavalry outside the gates, ~~the town~~ in the possession of the rebels, and itself a blackened

ruin; inside the fort, huddled together, and with scant provisions, were the few Europeans who yet had arrived, or were originally in the fort. As European detachments arrived matters became less gloomy. Some parties of Sikhs were sent out and were rather obstinately met by the insurgents, the Adjutant, Lieutenant Taylor, and several men being wounded. A combined force of Europeans and Sikhs on the 16th June, after some rather tough work and many personal conflicts, we skirmished through the town, burning as we went; our loss for such a small force was rather large, the Europeans lost two killed and seven wounded, the Sikhs had also some wounded; the bullets were heavy, square pellets of lead, not telegraph-wires as was reported. That afternoon the Moulvie with all his army of budmashes decamped from his Head Quarters at Aloeebagh, and the two guns lost on the night of the Mutiny were brought in. Next day the prisoners finding the road clear came in, and poor Ensign Cheek was brought in nearly insensible, and shortly after died. One of the prisoners told us that she had been kindly treated, that the males and females lived in one room, and were fed on native food.

On the 18th June General Neill went out and formally re-established our power in the town, and every effort was made to despatch a force to Cawnpore, for the purpose of relieving General Wheeler. Major North says:

"Our advanced column is commanded by Major Renaud, Madras Fusiliers, a man brave even to rashness. It consists of one hundred Irregular Cavalry under Captain Vallier, 2 guns under Lieutenant Harward, the Sikh Regiment of Ferozepore, and part of a moveable column under formation by Brigadier General Havelock, C. B., all full of spirit, and eager to relieve our beleaguered countrymen from overwhelming odds, against which they bear up and struggle too, so manfully. Courage brave hearts, aid is at hand."

From the 30th June to the 12th July, when we were joined by Havelock, day by day as we marched along, (often wet through, and pitching our tents in actual swamps,) our position became more and more critical, and just before Havelock joined us, we well recollect how anxious Major Renaud was to capture Futtehpore before that General reached us, it having been reported to us that it was only defended by a few matchlockmen. This was probably correct at the time, but the Nama with his large force was marching down upon it, and had we advanced not a soul would have lived to tell the tale; but Providence preserved us from a fate which at that time would have been ruinous to our power in India. Day by day as we marched along, we had ample evidence of the certainty with which the Asiatic had determined to tear us out of the land, root and branch; the untiring malignity which had, not content with mur-

der and mutilation, 'burned our bungalows and desecrated our churches only as an Asiatic can desecrate, we had witnessed, but we scarcely expected what we saw in passing along the road. There was satisfactory evidence that the genius of the revolt was to destroy everything, that could possibly remind one of England or its civilization. The telegraph wires were cut up, strewn the ground, and in some instances carried off, the telegraph posts were dug out, the bungalows burnt, and the poor unoffending milestones, even so useful to themselves but still English, were defaced, and in many instances destroyed. Several small skirmishes headed by Captain Vallier and his Irregulars marked our progress, and men caught with arms in their hands were summarily hanged, a stern necessity of the time now happily gone by. At last the news arrived that the force under General Havelock was hastening to join us, the General having heard of our critical position, and in the dim grey of the morning of the 12th July 1857, we drew up in line by the side of the road to receive them. We shall not (need we say) soon forget the scene. Up came the brave band, the 76th Highlanders, playing on their bagpipes the "Campbells are coming," while all along our line a cheer arose as we welcomed them. On we marched some 17 miles more and reached Belindah, a short distance from Futtehpore, at 7 A. M. Major North's description of the battle of Futtehpore is so good that we transcribe it here.

"There we halted to encamp, arms were piled in line, ground was taken up for each corps, and the weary, way-worn men, overcome by the oppressive heat and brilliant sunshine, lay down in groups, a little in the rear, anxiously expecting the arrival of the tents and baggage, which were close behind. At this time our Quarter-Master-General, Lieutenant Colonel Tytler, was in front, making a reconnoissance towards the town of Futtehpore with the volunteer cavalry. It is probable that the enemy deceived himself as to the strength of our force, and imagined that he had merely the small band under Major Renaud to contend with; for no sooner did he see the reconnoitring party retire, than his first gun opened fire, and sent a round shot bowling along the road, upon the heels of our cavalry riding stoutly to the line. In a moment the scene was changed, the assembly sounded, and the toil-worn men resumed their energy, sprung to their feet, supplied arms, formed a line of columns, and advanced skirmishers. The enemy with his numerous cavalry formed an imposing line as he came down insolently upon us confident of an easy victory, pushing forward two guns, and cannonading our front. Immediately our guns, Maude's battery, posted in the middle of the road which formed our centre, roared defiance as they opened fire upon the advancing foe, while the Enfield Rifles of the 64th (Madras Fusiliers ?) poured in a shower of bullets from a cove at the left of the road; at either side of which lay a happy ground, increasing our difficulty from being partly under

water, rising from three to four feet, to retard our progress. Scarcely had our advance commenced before three guns were descried by the light company of the 78th Highlanders. These had been deserted upon the road; on observing which, they rushed impetuously onwards, while Maude's battery advanced at a rapid pace firing with the most admirable precision; and closely followed by the light company of the 78th in an advance over three or four miles. The Enfield Rifles of the 78th began taking long shot at the enemy as they retreated hurriedly through the town, which now became visible, its entrance barricaded by native carts, and apparently all the baggage of the mutineers.

"Thus the battle of Futtehpore was decided by the intrepid advance of our guns and skirmishers; the reserve columns being far in the rear, owing to the impediments of the ground. Up to this time the troops had marched for 24 miles without a meal to sustain their over-tasked energies, yet at 11 o'clock A. M. Futtehpore was ours. No casualties had occurred during the fight, but several died from sunstroke."

We halted as may be expected in very high spirits, but very much exhausted in mind and body from the arduous work in which we had been engaged, having captured 12 guns, some of large calibre, and a large quantity of ammunition. Our post happened to be in a tope to the left of the road and in the outskirts of the town, and as we were resting ourselves, a dark looking swarthy man in native clothes rushed into the tope very much agitated; this was Lieut. Browne, of, we think, the 56th N. I. We got him some clothes, and then he told us he had been out with a treasure party towards Nagode when the sepoys mutinied; of three he was the only survivor, and escaped after an incredible number of hardships into a village, when two natives (who are with him) took him into their home, and have protected him till now. Hearing of our march from Allahabad, these two men had managed to bring him safely in.

On the 13th the force rested, and on the 14th again proceeded on its way. On the 15th General Havelock disarmed and dismounted the 13th Irregulars, who behaved badly at Futtehpore, and who were evidently unfit for service, if not really traitors. On the 15th, as we marched along, the enemy were found strongly posted in the village of Aong to the right of the road; the Madras Fusiliers with their Enfields behaved in the most daring manner, their commanding officer being however badly wounded. At last we took the position and captured 4 field-pieces, with a loss of 22 killed and wounded only. We rested for a short time, and then recommenced our journey, and shortly afterwards were again saluted by round shot, the enemy having established themselves behind a battery, commanding the bridge over the Vandoo Nuddee; our artillery and Enfields soon sent the enemy flying and a 24-pr. and a 12-pr. cannonade fell into our hands as we took their battery.

This engagement signed the death-warrant of our poor women and children in Cawnpore. On the 16th the troops again marched, halting in the heat of the day, as it was found that the enemy were in strong force some short distance off, and had erected batteries to sweep the road. The description of the battle of Cawnpore by Major North, is a very graphic and truthful one, which we can recommend to our readers. This hard fought battle, likened to Ferozhuhur by those who have been in both engagements, was a glorious display of England's prowess and discipline, when 1000 British troops and 300 Sikhs with scarcely any artillery, defeated the hordes of the rebels in their front. Courage and discipline were never more required. On, on, we had to advance, unfit from our small artillery to silence their well directed fire, and regiment after regiment had to pass through it, while as you marched along you saw immediately before you the effect of the round shot and shell upon them, and know that at a certain time and with the same results, you would be upon a spot that had already proved so fatal to many. The long distance and the evident results made it painfully clear what each one's fate would most probably be, but not one of that noble band wavered as gun after gun was taken, not by the effects of our artillery, but by the bayonets of our brave troops. But our position on this memorable day was often critical; the area upon which our troops were spread out was so extensive, and regiments were consequently often so isolated from each other, that had the rebels not lost all order, they might have cut us up almost in detail. That night the victorious column marched on nearly to Cawnpore; our fate was to lie down on the cold ground, in the middle of the late battle field till the morning.

Next day we arrived at Cawnpore. We quote Major North's description. "Nothing can be more cheerless or desolate than the view presented by the Company's ground; the most conspicuous and thrilling objects being the two barrack buildings so unhappily chosen by Sir H. Wheeler, after the mutiny of all the native troops at this station on the 6th June.

"There could scarcely have been a more fatally exposed position. The roofless shattered walls are thickly pierced with round shot, and they are not only exposed on all sides, but absolutely commanded by the new barracks, built in echelon along their front, and affording complete cover to their assailants. Outside the entrenchments, a mere furrow, are a few rifle pits." In our opinion the position held was not intended as a place for defence, and it is, we think, evident that Sir Hugh Wheeler had never expected the turn which events took, and probably took this precaution even against his will. We

fear he was one of those old Indians, who having spent a lifetime among the Asiatics, had so implicitly trusted them, that he feared they would mutiny if not relied upon.

As we entered Cawnpore a fearful crash was heard, and on our left a dense column of smoke arose. This was the blowing up of the Cawnpore magazine by the mutineers as they hurried off. There was something very sad in the look of Cawnpore—the vast city a deserted and blackened heap of ruins. Our hopes of seeing even one European to welcome us were vain—all, all, had perished.

Here is Major North's description of the slaughter house. "Tortured by the fierce thirst for revenge, and penetrated by the sense of their sufferings, strange wild feelings awoke within us. Vaunting, eager, maddened, we sped onward to the dreary house of martyrdom, where their blood was outpoured like water; the clotted gore lay ankle deep on the polluted floor, and also long tresses of silken hair, fragments of female wearing apparel, hats, books; children's tiny boots and toys were scattered about in terrible confusion. In a little book of daily prayers, which was picked up, was the following affecting inscription. "27th June, left the boats:" also, "7th July, went as prisoners to Salvador House, Fatal Day"! * * * Nor was this the only sight of horror that awaited us. More appalling still, there was the deep and narrow well within the same enclosure, choked with the mangled remains of those fair and helpless beings."

Yes pensive public of England, these people were murdered, with what barbarity the great Creator alone can tell. Of the murder there can be no doubt, yet you, I suspect, in a few months more will disbelieve even this, and doubtless an ingenious theory will be propounded to shew that they committed suicide, and that Nana Sahib was unable to prevent it! Recollect that these women and children were not killed for three weeks after their husbands and fathers! You do not believe in mutilation because, wonderful to tell, living examples are difficult to be found. Who can, or even knowing will, tell us, what happened before the death agony, when entirely in the power of a frenzied Mussulman or even Hindoo, mutilation or worse was a prelude to death which was the inevitable result, and yet in hollow mockery, you ask us for living examples. Do you believe the teachings of history? Have you ever read Indian history? Do you not know that mutilation and torture are principles with an Asiatic, and that they are only curbed by our rule. If you want an example in recent times, let us point to your notice the practice of Nepal. Before Jung Bahadur went to England, nose-slitting and hand-striking-off were the order of the day for slight offences. Even at the beginning of the present century,

the inhabitants of a town, which they rather obstinately defended, had their noses all cut off, and to prevent them forgetting the fact, their town was called the city of cut-noses—Kirthipoor, a name which it bears to this day.

We scarcely fancy that the sepoy was guilty of mutilation as a rule, and know that in our dominions many a Hindoo and Mussulman, especially in Oudh, would shudder at the idea. But you will find in the town budmashes, the jailbirds and the butchers, men who would, if safe from the consequences, commit and gloat over any atrocity, and we fear have too often, in this mutiny, done so. One word for the Indian Press, (with which we have no connection, so that our remarks may be taken as disinterested.) You say that it was the first to propagate those exaggerated stories, which now make you ashamed of your blood-thirsty language—language which even astonished us here. But take a file of the *Times*, after the outbreak, and one of an Indian paper, and I think you will find that (to our frequent astonishment) the stories you complain of were first circulated in England, and afterwards reprinted here.

Do not think that the consciences of your own flesh and blood become less tender here; the “still small voice” of an upright Englishman asserts itself as well in India as in England. Come out and judge for yourself, don’t say a word to expose your ignorance for some years, mix with the people, (not of Calcutta alone, for then you will make great mistakes) learn their language, have some knowledge of their religion, their manners, their customs and their main-springs of action, and you will find that while your equal in credulity, they have not got your good honest heart, your upright purpose, or your straight-forwardness, and can never become what you, never having seen them, fancy them to be—simply black-faced Englishmen. Pardon the digression, for we feel that our honor has been in some degree tarnished unjustly by the reaction of the English Press, which sometimes has a tendency to enslave men’s minds on many questions.

As we rested after entering Cawnpore in a bungalow, with some officers of the volunteer cavalry and others, a little insignificant looking man came sneaking up, who was immediately recognized as the Native Doctor of his escort, by Lieutenant Brown. This man had solemnly assured him, just before they mutinied, that the sepoys were staunch. His face was blackened, he was facing the tail upon a donkey, and we believe was afterwards hanged. Another, a Soubhadar of a native corps, was taught trying to tamper with the Sikhs and hanged. Passing over our trip to Bhitoor in which we took 15 guns without firing a shot, we come to the time when preparations were made for crossing the river Ganges, and attempting to rescue the be-

leaguered garrison of Lucknow, with the prospect of no tents, while scanty food and heavy rain were the order of the day. Cholera now again began to assail us, while the want of tents, and the continuous rain increased the disease. After crossing the river, we advanced to Mungarwar some six miles from the river's bank, and some were fortunate enough to get native huts; some managed to get native vaults in which overcrowding was the rule, while the Seikh soldiers ingeniously rigged up thatched huts for themselves.

We staid here a few days and marched with 10 guns all light field pieces, and 1,500 men, on the desperate enterprize of relieving Lucknow. As we approached Oonao, some ten or twelve miles off, it was evident that we would be opposed. In the main street two native guns, 9-pounders, were placed; those we quickly silenced, but a most destructive fire from loopholed houses was poured upon us. It was sad, very sad, to see our men pulled out, so to speak, dead and dying from the entrances of the houses they were trying in detail to storm. After a long and obstinate resistance the place was ours, although it cost us 88 men killed and wounded.

The enemy however again attacked the baggage from a strong scrai; our Chunar pensioners and some Seikhs tried to storm it, but failed. The Seikhs were falling fast, and a poor Chunar man was shot through the heart while serving his gun, the hero of many a hard won fight. At last the enemy evacuated the place, and the column proceeded, capturing 16 guns immediately beyond the town, and on reaching Basaruthgunge, after a short and tough struggle, other three guns were taken. A glorious day's work truly, but if the road is so toughly contested, there must be little chance of us reaching Lucknow. Back again gradually to the old encamping ground at Mungarwar, which we reached on the 31st again, very much weakened by casualties and by cholera, which was ripe in our camp still.

On the 4th August we again advanced in the afternoon, at scarcely a moment's notice, just as we stood and encamped in a swamp some short distance from Basaruthgunge and to the left of the road, we had now a much larger artillery than we ever had before, and the enemy were reported to be in great strength at Basaruthgunge. We marched early the next morning, stiff, damp, and uncomfortable, as may be imagined, with cholera thinning our ranks, and found the rebels in great strength in the town of Basaruthgunge, the scene of our former victory, as if to defy us. As we neared it a solitary gun was opened upon us from the gateway, the dense masses of the enemy surging, on either side, and looking as if they, by the mere power of numbers, could have swallowed us up.

MARCH, 1859.

As usual, when it could be done, the brave Havelock made a flank movement, avoiding the town, the main body of the troops making a long detour, while the 24-pounders properly supported remained upon the road playing into the town. At first it rained heavily, but gradually cleared. On we went with our 9-pounder drawn by bullocks and commanded by Captain Maude, the dense masses in our front surging and jabbering in myriads, and treating us to a liberal allowance of shot and shell. Artillery decided this battle more than before, and the cravens were scattered in a few hours.

We came back through the town and saw a great many who had been killed by our precise artillery fire, but at the gate we saw the *chef d'œuvre*. The gun which first opened fire was there, and round it were lying three men who had been serving it all wounded in the head, by shot from our 24-pounders served by Lieutenant Crump. Our casualties were less than before on this eventful day. After halting for a short time we returned to Mungurwar the same day—an awful march, and sad and dispirited were we all as we again for the second time, turned our faces from an enemy we had scattered far and near. Subsequent events have shown us, that had we advanced, not one of us would have lived to tell the tale. Here as elsewhere, Havelock proved himself a 'true General.'

From that time to the 11th August little was done beyond, to a certain extent, making the camp more compact, and we latterly were making preparations for going across to Cawnpore again. We sent away everything, servants, &c.; and just as we stood were marched off in advance again, with cholera thinning our ranks and under a black and lowering sky. We halted just beyond Oonao, and rested for the night as best we could, most lying on the bare ground, some fortunate in getting a dooly. In the morning we advanced, the small, gaunt, careworn remains of our force, the men almost dropping out in tens from cholera, but with courage as high and undaunted as of old. The enemy were discovered in position close to the village of Boddya-ka-Chowkie; they immediately opened a battery upon us to the left of the road. We happened to be lying down in the centre of the road, and the shower of shot and shell they treated us to, was anything but comfortable. Luckily for us the shell almost always went to the right or left of us, and landing and bursting in the water, deluged us with spray; at last the Highlanders crossed the swamp on the left, and like one man, with body bent forward and steady tramp, flung themselves upon the battery and captured three horse battery guns. The sight was a beautiful one, and we upon the road could not witness it unmoved, and a rty cheer quick as an electric shock ran through the ranks of

Seikhs and Europeans alike, as we saw their steady advance upon and capture of the battery. Alas, how few, how very few of that gallant band remain! The rebels as usual ran helter skelter, and we returned to our old quarters at Mungarwar, hungry and weary. It rained heavily all that night, and early next morning the skeleton of Havelock's force retraced its steps to Cawnpore. The object for which we fought on the foregoing day, had been accomplished, and we retired unmolested to our boats, and quartered ourselves in the various bungalows along the river bank. Cholera was still wasting us away, and had reinforcements not been sent, the force would soon have had its "last man." On the 16th the miserable remnant of our force, some 750 Europeans and 250 Seikhs, advanced towards the town of Bhitoor in which the enemy were in great force, and threatening Cawnpore. As we advanced we came upon an outpost of cavalry which ran off, our guns trying to kill a few. As we approached Bhitoor it was evident that the enemy were in great force before the bridge and town, and as we marched along the road, they opened fire upon us, with double shotted guns (grape and round shot) but on we pushed, the 78th Highlanders having again the honor of entering a battery and capturing two guns. Immediately to the right of the road lay a large garden filled with the mutinous 42d N. I. from Saugor, and many of them armed with rifles; their fire was particularly heavy. At last they were dislodged and we carried the bridge and town of Bhitoor, both of which were adapted for a severe and protracted struggle.

The distance that we had to pursue the enemy, while practically destitute of cavalry, was very great, and all ranks were very much exhausted. As we advanced the enemy's cavalry, according to custom, attacked our scanty baggage in the rear, cutting down our servants right and left and plundering our stores. We halted at Bhitoor for the night, marching for Cawnpore the next morning, and halting during the heat of the day in a tope about midway. Cholera was still among us even worse than ever, more than decimating our brave little band, and the pibroch of the Highlanders as one after another was laid in his grave, sounded nearly all the time that we halted. Our space will not permit of our saying much of the interval between the action at Bhitoor, and our recrossing the Ganges, but cholera was still diminishing our little band, and races and other amusements were got up for the purpose of diverting the men from such gloomy associations. Some time after General Outram arrived with H. M's., 5th and 90th, while we had been strengthened by detachments to the other regiments in the interim. At last a forward move-

ment was made; the Seikh regiment of Ferozepore was sent over to the other side of the river on the 17th to protect the making of a road for the heavy guns, but the enemy's fire was so heavy that by order they retired to their boats. Here reinforced by some guns under Captain Maude and the 78th Highlanders, they kept their ground, and the road was completed. On the 19th the force under Havelock and Outram crossed the river, the rebels playing upon us at first, while the 78th and Seikhs in skirmishing order formed the advance. When the artillery came over they quickly retired, and we encamped by the river's side for the day to permit of the baggage coming over. We were now some 2,600 strong, and full of hope and spirit. Major North, we are glad to see, notices the generous way in which the chivalrous Outram, so beloved by all from the officer to the private in the Residency and the Alumbagh, waived his higher rank to permit of Havelock accomplishing the object of his heart—the rescue of the garrison of Lucknow. The predominant feeling now was one of enthusiastic admiration of the magnanimity displayed by Sir James Outram in relinquishing his own just claim to command the force, in favour of General Havelock. Such self-abnegation is as admirable as it is rare, and could emanate only from a mind superior to every and all petty feelings of rivalry. No action of his life betokens more greatness, than this chivalrous act of self-forgetfulness, which practically illustrates the christian principle of doing unto others as you would be done by. There will be no brighter page in the "History of the Great Indian Rebellion of 1857," than that which will record this noble recognition of General Havelock's exertions, this just appreciation of his merits. There is something absolutely grand in the very simplicity which marks the following order of Sir James Outram:

"It would be unfair of me to assume the command after all the efforts made by General Havelock to reach Lucknow, for whom the honor of relieving its beleaguered garrison is reserved"

On the 21st we again advanced and found no opposition until we arrived at Mungarwar, our old encamping ground. Here it was evident the enemy were preparing in great force to meet us, and as usual they opened their guns upon us. The day was wet, the rain poured down in torrents, so the fire of the matchlockmen was more feeble than usual. A village to the left was stormed by H. M.'s 90th, and the rebels in front were dispersed and their guns taken, but a new feature was exhibited in the charge of the Volunteer Cavalry, who, now numbering about 120, and full of ardour, charged upon the retreating masses, led by their brave Captain, Major Barrow, and accompanied by Sir James

Outram, who, cudgel in hand, knocked down the flying enemy, pursuing them nearly to Basaruthgunge. The cavalry did great execution, and captured two guns with their gallant Commander, Major Barrow at their head. On we went, cold, wet, and shivering and halted at Basaruthgunge, some being fortunate enough to get into native huts for the night. On the next day we marched forward in heavy rain and reached the village of Bunnee, where we fired a royal salute to inform the beleaguèred garrison that relief was at hand. On the 23rd we again advanced, the rain pouring down still upon us, but gradually as the day wore, it cleared up. As we approached the Alumbaugh (a large garden with high walls and a house in the centre in the outskirts of Lucknow, and on the right of the road as we approached) it became evident that the enemy were in position to receive us. The first shot of the enemy knocked over three officers of the 90th, all of whom subsequently died; our artillery, followed up by the rapid advance of the infantry with their Enfields, soon decided the day, and the enemy left us the masters of the field. Our baggage and stores were not yet properly up, so "short commons" was the order of the day, while it rained heavily most part of the night. On the 24th, preparations were made for the forced entry into Lucknow; the enemy's guns were firing into our camp all day, to which we liberally replied. An order was issued that we were to march upon Lucknow next morning, leaving almost every follower behind us and nearly all the baggage. All night we heard the booming of the Residency and enemy's guns. Oh! how fervently we wished that the Providence which had hitherto watched over the garrison might on this night protect them, and grant us the felicity of seeing the rescue of our brave countrymen and women on the morrow.

At last the morning of the 25th September 1857, ever to be remembered by the few now surviving of the force as an epoch in their lives, arrived, and hopeful and strong in heart, we advanced on our glorious mission. Two hundred and fifty of our small band were left behind, so that about two thousand four hundred of all ranks advanced on that eventful morning; alas, many, very many, of their number had their eyes closed in death, ere the accomplishment of their hearts' desire—the rescue of the garrison. At first their artillery fire was heavy; knocking over some of our artillerymen; then as we advanced upon the road, a heavy musketry fire opened upon us from the cover of the walls on either side: as we approached the canal bridge the fire was most terrific from some guns, which were gallantly taken and spiked. Our first division advanced along the Cawnpore road, but the fire from musketry was so heavy, and the

road so deeply cut with trenches, that the troops were ordered to retrace their steps: The Generals had wisely determined to skirt the canal opposite the Churbagh, and thus get to the Residency by a safer but more circuitous route. Had we advanced along the Cawnpore road not a soul would have been alive to tell the tale. On we went under a pretty heavy but almost harmless fire from the Churbagh, the enemy deserting some guns on a height and flying before us. On, on we pressed until we reached the king's stables when, we quote Major North's spirited description. "A large massive gate near the king's stables delayed our further advance by the barrier it offered, and such was its strength, that for a time it resisted the efforts of Captain Olpherts who was foremost with the men of his battery to blow it open. At length it yielded to his endeavours, and the insurgents, who were concealed within it, were despatched. This act being notified to Sir James Outram the column pushed on, regaining what appeared to be the principal road to the palaces; but we were again exposed to a deadly fire, which checked our advance, whilst our heavy guns sternly replied. Here the cannonade was in the highest degree animating, and the excitement absorbing and supreme, while every building, loopholed, swarmed with armed men and literally bristled with muskets and matchlocks. On all sides we were exposed to their incessant fire; the missiles of death rained thick and fast among us. Shelter was unattainable, destruction imminent. Still we bore onward, but without the certainty of that brave garrison, for whose existence we had dared so much, being yet alive; for amidst all our dangers, hope grew strong and cheered us. Nerving our hearts against the tide of opposition we advanced steadily, until we reached a large court-yard. And now it was proved that, notwithstanding the surprise of the insurgents at the unexpected route we had pursued, they were nevertheless prepared for us. Their artillery bore upon us along the line of road by the river Goomtee, till we at length diverged through a plantation by crossing a low bridge."

The fire was here exceedingly heavy; from the 32nd Mess House and all the adjoining places a heavy musketry fire poured upon us, while the shower (literally a shower) of shot and shell from all directions was of the most terrific description. How we escaped we know not; men, horses, and bullocks were falling at every step. At last we reached the courts of the Motee Mehal which offered us a partial shelter, but here again they turned their guns upon us from our rear; and the losses were getting heavy again. At length after a short pause, we received the orders to rush on, the brave 78th Highlanders and the 2nd regiment of Ferozepore advancing first. On the brave

force rushed through narrow streets of loopholed houses with the iron hail descending upon us and picking off men in numbers. It was an awful rush—God grant that we may never witness such another! At last the Residency was reached and saved, and the object of our hearts accomplished.

Thus ended this deadly struggle which cost us 31 officers and 540 men killed and wounded out of our small force, and to our astonishment next morning we found that our dangers had only begun, not ended, for the fire of shot and shell was exceedingly heavy, as well as of musketry, while in the entrenchment the confusion was extreme. Men, horses, cattle, guns, and doolies, filled up the way; while the 98th Light Infantry and the heavy guns were still outside.

The scenes in the entrenchment on that morning were of the most varied description. Here you might see in groups the men of yesterday's struggle, that remained, tired, dirty, and blood stained by their comrades' wounds, there lying in a dooly, stark and stiff, yet with such a placid look on his face, lay all that remained of the gallant Genl. Neill. Further on, and looking with intense anxiety to the Baillie Guard Gate, might be seen the spare form of Genl. Havelock, for his son was still outside among the wounded. Here at the Residency Surgeon's house, you might see Sir J. Outram cogitating deeply on the perplexing state of affairs, and having a heavier fire round his house than that of any of the others, a fact which, in conjunction with many others afterwards, fully convinced us that the enemy's spies existed within the entrenchment in no small number. The guns being still delayed, and reinforcements being urgently required, a party was ordered out in support at 12 P. M. We unfortunately formed one of that party, and had, after a scanty breakfast and a good deal of work, felt so tired that we thought a rest advisable, when the order came and off we had to trudge. As we went out of the Baillie Guard a rather heavy fire assailed us, but as we skirted the river's bank for some distance, not a soul was to be seen. As we gradually emerged from the cover of the palace of the Torad Buksh, we had to cross a nullah up to the waist under a very heavy fire, some being killed and wounded before we entered a house just on the other side, and called by the name of Martin's house; two poor Seikhs had their legs just bowled off as we were entering the house. The house was pretty well filled at last, but was a scene frequently of no little confusion, and the fearful afternoon and night we spent in that house will not be soon effaced from our recollection.

All that afternoon and night, the shot and musketry were flying about like hail, while from a 32-pounder on the other side of

the river shot were rapidly coming in with fearful precision, generally striking the wooden rafters of the houses and sending splinters of wood here and there, frightfully wounding our brave but for the time helpless men. After a long and anxious stay without food in this house we managed to escape before day light in the morning, not a word being spoken even by the Seikhs, every one knowing how necessary to his safety was the most profound silence. At last we effected a junction with the 90th and the heavy guns, and the united force entered the Chuttur Munzil and Torad Buksh, the old palace of the king of Oude, with little opposition and small loss. An episode occurred as we neared the Torad Buksh. Some of our force had been surprised and had to rush to a house near at hand, a number of wounded were with them in doolies; those who could escape ran into the house, one was rescued, and the rest, pitiful to relate, were slaughtered by the sepoys. Those who survived were the gallant, the chivalrous, Captain Beecher of the 40th B. N. I., Lieutenant Arnold, Madras Fusiliers, and Doctor Horne, 90th L. I., Privates Hollewell, Ryan and another. Captain Beecher and Lieutenant Arnold died. The survivors have received what all merited had they survived, the Victoria Cross, for their glorious defence. We cannot do more now than very briefly glance at the events, which occurred up to the time of our being relieved by Sir Colin Campbell, and our readers must be pretty well aware from the various books on the subject, and a former article in this *Review*, what the inner life of the garrison was both before and subsequent to the rescue by Havelock.

From the date of our forced entry to the final relief of Lucknow, several sorties were made, and the position of our force extended all round the Torad Buksh, still keeping open our communication with the Residency. The enemy's operations were therefore principally directed to us, and at first they managed to mine us very successfully, but we executed such a large number of defensive mines, (under circumstances of great difficulty) that we could at last almost defy them. On one occasion the 6th October, a day ever memorable to those who, like us, were surrounded and cut off, the rebels blew up one of our pickets and rushed in, surrounding and cutting off at least one post, that occupied by Brasyer's Seikhs, and for the whole of our part of the siege so nobly defended by them. On they came, a dense mass, jabbering and shouting, the trained matchlockmen, with the wild tulwar and shield—warriors mad with excitement, without order and bent upon our destruction. At last after some desperate fighting, and no little anxiety, the "braves" departed utterly discomfited, and as we went through the various places just vacated by them, we saw the marks of their presence, in such quantities of dead bodies as

in such small space we had never seen before. Here was a heap in the garden before the painted house, the post of the Madras Fusiliers, there another by the 90th at another place, and the Sikhs pointing exultingly to it, and not very complimentary to the forefathers, or even the present relatives of the deceased, as they passed them by; all day the men were digging graves for them. Those men are said to have been new arrivals to the amount of several thousands, and are also said to be Maun Singh's men. The tactics of the enemy are quite different from ours. they always send their raw hands to the front. This unexpected defeat rather damped their attacking ardour, and although we still lost a good many men, it was now principally from firing from loopholes that we suffered. The trials we had undergone, together with the hard work and little food during our residence in the Baillie Guard, have left their impress on us as well as most of Havelock's old force, and it is rather annoying to find an opinion spreading abroad that we endured little if any hardship, because the commissariat had some supplies when the Commander-in-Chief came in, and some people actually had a little wine. We can safely say we only twice tasted wine in the entrenchment; tobacco was exceedingly scarce, a little vile tea could be had for Rs. 16 a seer, and some vile mud and sugar occasionally at the same small figure. For the most part of our residence our diet was the following :

Daily rations for Europeans.

| | | | |
|--|----|----|-----------|
| Flesh meat, (bones included), | .. | .. | 12 oz. |
| Wheat, (something like sawdust and flour), | .. | .. | 1 1/4 oz. |
| Rice, | .. | .. | 1 1/2 oz. |
| Salt, | .. | .. | 1/4 oz. |

No ghee or anything, so your chupatties were not very nice, and indeed caused diarrhoea almost invariably. Your beef was execrable, ugly! such stuff!—yet to swallow it was a necessity. We will not here enter upon the daily life of the entrenchment, the sad consequences of the simplest wound, or the despondency of the Surgeons as almost every one of their amputations did badly. These and other features of the siege are familiar enough to all now-a-days, but we hurry on to the time when the Commander-in-Chief relieved us, and we left in the dead of night the Residency, which had beheld so many a stirring scene, and proved fatal to so many a gallant heart.

We marched on quietly and noiselessly until we reached the Dilkoocha, and encamped for the night; lightly clad as we were, we felt as if the cold would have killed us; at last the sturdy and brave 5th Fusiliers lighted a fire to which we quickly repaired and warmed ourselves. The next day we heard that our brave old General was very ill, and on the 24th November he died. Peace to his manes; he died seeing his work accomplished, the object of his

heart's desire fulfilled, but we had noticed for some time the brave old man wasting away, yet always at his duty to the last. This then appropriately marks the termination of Havelock's Indian Campaign. The force with some additions to its strength defended the Alumbagh, and became equally celebrated as Outram's force. At a future period we may follow its career up to the final taking of Lucknow, when its distinctive character becomes for ever lost, by the breaking up of its parts and the departure of its brave leader.

We can only say for Major North's book, after the extracts we have given from it—read it, and we are assured it will amply repay an attentive perusal. Although a little too historical in its style for a personal journal, it is one of the most truthful and correct of the many accounts of the Indian mutiny.

England is now everywhere triumphant, and the small determined bands, at Lucknow, Delhi, and of the force under Havelock, are among the things that were. As time rolls on, Havelock's force will take its stand in the imperishable pages of history, and it will be acknowledged to have been, in the language of its illustrious General "the stay and prop of India in the days of her severest trial." The deeds of that force, conjointly with the Delhi force and the Lucknow garrison, will long live in the household memories of our native land, and it will be acknowledged with pride that these illustrious bands saved India, under such trials and with such bravery, that England can now once again, after a short interval, point to her sons and say—"With such men as these I need fear no enemy."

- ART. III.—1. *China: being "The Times" Special Correspondence from China in the Years 1857-58. Reprinted by permission. With corrections and additions by the Author, GEORGE WINGROVE COOKE, AUTHOR OF "THE HISTORY OF PARTY," ETC.* London: G. Routledge and Co., Farringdon Street. New York: 18, Beekman Street. 1858.
2. *The Chinese and their Rebellions viewed in connection with their National Philosophy, Ethics, Legislation and Administration; to which is added an Essay on Civilization and its present State in the East and West.* By THOMAS TAYLOR MEADOWS, Chinese Interpreter in H. M.'s Civil Service. London: Smith Elder and Co. 1856.
3. *A General Description of China, with the History of Foreign Intercourse down to 1857.* By SIR JOHN F. DAVIS, BART. New Edition, revised and enlarged, 2 vol. London: John Murray and Co. 1858.

UNDETERRED by the fate which awaited us the last time we did so, and which may be waiting us now, we again raise our shout of joy, and rashly, because we have got a Treaty, declare China opened. Hurrah boys, let us see who is first, is the cry, and every steamer takes new crowds of adventurers to China. We are not commercial men, we do not talk glumly of probable failures, and cautiously calculate how much we might lose by them did we give the parties credit; on the contrary we have no interest in the matter, and having nothing to do, rather join in shouting with the crowd, as we should be unnoticed did we hold our tongue, and it is far too great trouble to contradict a mob.

But while joining with them for ease and quietness, we are not so mad as they, and wish to know something of what is opened to us before we take the fatal jump, and plunge into China. Our table is covered with books; we have only to read to our hearts' content, or rather, sad to say, to our souls' disgust. French Missionary on French Missionary Annals of the Faith testing ours hardly; *Lettres curieuses*,—curious indeed but not edifying; we throw them aside, loudly declaring we don't believe a word of them, and turn to more modern writers. We know, at least it has been dinned into us, that China has never changed; we find to our horror that it is true, at least each successive writer's work strangely resembles that of the one before him. Oh for something new! We turn, as we intend to be travelling, to M. Huc, and are deeply interested, but alas! three-fourths we have read before, and the other fourth we can't believe, and so with Mr. Fortune, he may be correct in his botany, but with due deference—we doubt the rest.

Just as we are giving up in disgust, for Williams is but a heavy compilation, we get Meadows, and a few facts mixed alas with too much on other subjects, and to make us happy once more, Wingrove Cooke; from which two books, aided by an occasional reference to graceful Davis, we have constructed our idea of what we are going to, and what therefore we shall see.

First, why we know not, whether because we believe it the mainspring of a nation's life, whether because we wish to see what obstacles it presents to our first object—the spread of our own, we turn to their religion, and seek to find out what a Chinaman believes; for though Cooke calls their faith but a cynical half belief, we feel sure they must believe something, and Cooke himself aids us out of the difficulty. “Taoli” is the clue to our enquiry, this Taoli which the high mandarin explains as pervading everything, which, expressed in writing, every man reverences as the standard by which he judges everything, this Taoli is their faith, and let all the Missionaries and sinologues and travellers in China declare the contrary, we will maintain it.

Mr. Cooke tells us how priests as well as people jest about their idols; Mr. Meadows, the respect priests are held in in China; and though he at the same time tells us of well endowed temples and monasteries, though we read of sacrifices being offered in times of famine or distress, yet a little thought must make all agree that these monasteries are but the result of that innate consciousness of how small and insignificant we are, and that longing for distinction which makes us all desire to leave some monument behind us; and that, though occasionally a little cynical half belief may be felt, the keeping up of religious ceremonies in them is but the result of love of “pidgeon,” love of doing something, and the feeling of all professing false religions, that, if regular ceremonies are not kept up, religion must go to pieces.

We read, and we believe, that the constant answer of a Chinaman when asked about his religion is a laugh, and an “O, we leave that to old women; foolish people must have something to amuse their weak minds and keep them quiet, and the wise must occasionally affect to have a firm belief in these things to keep up the infatuation.” A common Chinaman thinks it an insult to be thought to believe in his religion, and we consciously, perhaps rashly and wrongly, do not believe he does. But it will be said,—does not a Chinaman believe in *T'ien* that we hear so much about, and the *Shên* and *Kuci*. From what we have read we do not believe he does. He does not go so far as with Buddhist and Taoist idols, he does not disbelieve them. *T'ien* or *Shangti*, he will tell you if an educated Chinese, is the Head of the *Shên*, the Emperor among them as *Huangti* among men; the *Kuci* are unfortunates who after death are not

sufficiently pure to be raised to the rank of Shên; but though he would be horrified by a denial of them, belief in them involves too many contradictions for his acute mind, and so he contents himself with ignoring the question altogether.

But he has the firmest the most entire belief in Taoli, that mysterious thing which can only be comprehended, not explained. They reverence, they worship Confucius as its declarer so far as our conduct is concerned, they venerate his books from study of which they may arrive at a knowledge of it; if they do not act up to it, it is, as they say, that they fail to understand it. Taoli is the 'what is right'. Whether that a man should stand upright or that he should walk righteously, whether that heaven is above us or that we should reverence it. Our duty, nature, religion, everything is included in it, and it is by fixing their eyes on Taoli, that China has gone on so many years without falling.

Having then satisfied ourself as to what is a Chinaman's faith, what his superstition, we come to the question how we are to get rid of the latter, how the former harmonizes or is antagonistic to our own. Mr. Meadows tells us that no one in the world is so easily worked upon by ridicule as a Chinaman. What is so easy to ridicule as what is false? If missionaries, instead of arguing the matter gravely, caricatured their Buddhism and Taoism, they would soon be laughed out of China. A Chinaman does not mind laughing at himself, he likes laughing at others, but, witness Mr. Cooke's squinting friend, he cannot stand being laughed at himself, nor in doing so need we fear offending religious feelings. Men who hide their dollars in their idols' stomachs cannot have any very deep respect for them. And having thus (nor, it is to be hoped, will it be thought that this is flippantly written) having thus got rid of their superstition, their religion we shall find not a hindrance, but like Judaism, a preparation for Christianity, making men ready to become Christians.

If we read the teachings of Confucius,—and that is all we need acknowledge, these alone being looked on by the Chinese in the light of revelations,—not only shall we find as we are told, that they might nearly if not all be translated in text of Scripture, that the sage left doctrine an open question, that he did not, as Davis tells us, define the nature of T'ien, and that he spoke not in the words of the Sunya of Shên, but that passages are to be found in his works acknowledging his ignorance of his God, and hinting at the advent of one who should come and explain these matters more clearly.

'We know that it was a passage in his works which caused ambassadors to be sent to the West, to seek out a new master. The task of missionaries seems an easy one—to shew broadly how Christianity is the perfection of Confucianism, the fulfilment of

Taoi as of the Law. We may be wrong, we may have conceived on imperfect evidence too high a view of Confucianism, we may have thought too nobly of the hold the doctrines of his successors have on Chinese minds, but as this mode of working seems never to have been tried, and knowing, as we do, that considering Christ as the perfection of our own religion (as apart from superstition) has led to the conversion of educated Hindoos, we do not think China Missions such a hopeless field as the Bishop of Victoria, in his late letter to the Archbishop of Canterbury, appears to be willing to believe. Not only trusting in the Divine promise, but looking at human probabilities, we see no reason why, with perhaps better directed effort, they should not be successful.

Having thus mastered the first object of our enquiry, we come to the nearly equally important question—the character of the people; and here both Meadows and Cooke give us much information. We had always thought the Chinese a dull impassible people, utterly devoid of curiosity. Huc had indeed told us the contrary, but we could not believe him. The scene at the Chinese dinner at Ningpo, the loud ‘aiya’ of the roof-full of spectators proves the contrary; the crowds with which Mr. Cooke was always followed, confirm it, and most unpleasantly. We had hoped we should be able to jog along quietly through the country; we find that if we dress as a Chinaman, the dogs will find us out in a moment, if in outlandish attire we may, like the old French gentleman, be mistaken for the devil. We are sorry to find that curiosity, however much they may deny it, is one trait in their character.

Going on a little farther, we find that although they have none of that caste feeling which in India prevents a man rising above the state in which he was born, they have a great idea of never doing anything unbecoming the station they may have obtained, that a boy would not be seen carrying copper cash to save his life, that it is needless to ask any of your servants personally to do any thing for you. You approve of the first, modified as it is by age and learning, constituting the first caste, and although it is perhaps inconvenient to have to keep a double set of servants, one to work, the other to be ornamental, you would get reconciled to it before long.

Next comes a puzzle. We have always heard the Chinese spoken of as treacherous and cruel. Meadows tells us, and Cooke confirms him in saying, that they are always in a broad grin. Honesty and laughing, we thought, always went together, as grinning and good nature. We can only account for the apparent anomaly by supposing the victims of their cruelty were gloomy, and, that the Chinese resented their unnatural behavior. All agree that a grin will carry you safe through China; as that is all we have to do

with, we are satisfied, and leave the question for some more experienced analyst to solve.

They are not ungrateful if you render them a real service. The conduct of the Hong merchant in buying a ship for the young officer who befriended him, shews that they will return it. That boys will rob their masters after ten or twenty years' service, is probable. People in India can understand how long acquaintance does not necessarily lead to mutual affection. Treat your servants well, and they will stick to you, not well in the conventional sense of the term, but well in its right meaning; take an interest in them, and they will take one in you. Confucius says—'loving others they will love you,' and whether electro-biology and magnetic currents be true or false, it is so. With their filial piety, all absorbing trait in their character as it is, we have nothing to do; we are not going to take a Chinese wife, and we shall have no need therefore to instruct our children in the duty and respect they owe their parents. As travellers we have only two more qualities to seek in them—aptitude for business and courage.

The first all own they have, though Hong-kong experience shews that the gambling spirit with which they are one and all possessed, is apt to lead them into rash speculation, and their money-making longings are at times apt to make them cheats; still they are honest in above-board dealings, and you only require to keep your eyes wide open to get on with them very well.

For their courage; after the battle of Fatshan, in which we lost more men than before the walls of Acre, Cooke writes, our opinion of the timid Chinese is quite changed; and afterwards he tells us of Chinamen going on quietly with their work, while the shells were whizzing over their heads. We read of men bringing boats full of powder under the bows of men of war, and blowing themselves up in the vain attempt to destroy their enemies; we hear of the gallant doings of the Cooke Brigade. We are very much inclined to believe that bad teaching and bad leadership are the secrets of Chinese cowardice. Men with such an utter indifference to death, who will when fighting to gain something fight so desperately as Chinese pirates do, cannot be cowards. Taught from their infancy that the good soldier runs away with every thing to lose and nothing to gain by fighting, and that there is no disgrace to fear in flying, we cannot wonder at their doing so.

Having thus disposed of their religion and character, which last, (as Mr. Cooke says it is impossible) we have not attempted to comprehend as a whole, we have now the customs to understand, and to inquire what we shall after all gain by going there. The language, we must reserve for a future Article. It is too serious a matter to be treated now.

For climate, there seems to be every variety, but unless you keep constantly on the move you cannot secure a good one, and even then, unless well provided with ice and cunning in the composition of curious drinks, you cannot always make life endurable. In summer you must be prepared for eruptions of boils; prickly-heat will seize you if you luxuriate beyond measure in cold water; in summer, if at Hong-Kong, you can only lie and pant; in the North in winter you may experience all the rigors of an English December. From October to May Hong-Kong is said to be a delightful place to live in, but there is no place, not even Macao, (if you have an objection to being slowly melted away) whither you can fly for the rest of the year.

So much for the climate. For the country, as elsewhere, it differs.* Those who have seen both say the river Min is equal to the Rhine. Nothing could be grander than the mighty Yang-tze-Kiang, but your first impressions are not favourable. Hong-Kong which you come to first, Cooke describes as a rock seemingly covered with dusty mouldy moss. The old embassies contain accounts of the dreary monotonous bleakness of the shores of China; you must cross those granite hills to get at the country.

Then when you see the terraced fields down the hillside, the quaint joss houses surrounded by little topes of trees out of which their roofs peer curiously; the mountain streams the occasional waterfall, the smoke of the village just appearing in a corner, you might sit down to paint a landscape, the beauty of which would not pale before those of our own land. But even then the thought rises within us that there is another view of this peaceful scene, that some horrible water-ox may see us and give us chase along the narrow walks, which separate the paddy fields from each other, that perhaps desperately firing our gun at him we may wing some wretched Fohi, and be set upon and carried back on a pole tied hands and feet with untender though supple thongs.

It must be confessed that China is not a pleasant place, for a mere traveller, the only thing we can go there to do is to trade, and to do this successfully we must deal in opium. Oh unhappy Opium, when we see clippers named after the faithless gazelle and light zephyr employed in your carriage, when we see you brought to China by ships named after decent women, how can we help feeling a repugnance to you. It is true that Mr. Cooke proves that you do not ruin the Chinese, that Mr. Meadows shews opium to be as harmless a cargo as sugar; it is true, some think, you have done inestimable benefit to China, but until opium clippers are called by other names we can have nothing to do with you. Such must be the soliloquy of the respectable merchant, who has read on the subject. It is a pity some-

thing is not done in the matter, it is useless to say what's in a name, till opium clipper^s are called the washerwoman's daughter or the dairyman's delight; till then no man with any regard for his character can deal in opium. For the other trade it seems very doubtful, whether the opening of China will greatly affect the import of woollens and cottons. Cooke's experience went to prove the inland custom-houses a myth; it is certain that they were no hindrance to the introduction of opium, it seems difficult to understand why they should be so to that of other articles of trade.

The opening of new ports is an advantage, though two of those opened by the old treaty are almost unfrequented, but it is rather a pity that certain ports should have been fixed on. What was wanted was that we should have been allowed to send Consuls whither we pleased, on trade increasing sufficiently to need their presence, but there were doubtless reasons for taking the other course, and we must not grumble. At any rate if China does not increase its demands on Manchester and Preston, it will be because it really has enough cloth of its own, and perhaps better suited for its own purposes.

Our manufacturers must heed the lesson, Cooke would din into them, that you must suit your wares to the tastes of the consumers, not vainly endeavour to bend them to your own whims and fancies. If the Chinese shoemakers in Calcutta made all their shoes like those worn by the weeping willows of the flowery land, I am afraid they would not be so prosperous as they are now; let Manchester send for China patterns and work from them, and not adventurously insist on introducing its own fashions.

One thing more requires to be arranged, and then one might be tempted to go into trade—the Exchange. While it is in the fearful state it is in now, one can have no comfort in money matters. The endless changes in the comparative value of dollars and copper cash, the endless and arbitrary differences in the values of different dollars, the ridiculous system by which a dollar with half the silver punched away is of more value than one fresh from the mint, these endless fluctuations are enough to drive an ordinary person mad. Until some radical change is introduced, commerce must be concomitant with irritation. It is one of the best articles of the treaty which declares that duties shall henceforth be paid in taels of sycee silver. The merchants in Shanghai are introducing the same system of making all payments by weight as Government have determined not to establish a Mint at Hong-kong. As we do not like the Russian's coin ingots at home, the introduction of sycee to the exclusion of dollars will be a great convenience, supposing the supply does not run short. Should this occur, some wise merchant will think of having

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his dollars sent to Calcutta and melted down, and from stamped ingots we may yet in time come to an universal dollar. The attempt to introduce the use of English money into the English colony, Hong-kong, was a failure; perhaps it is for the best that we should be led on in this manner rather than start a new coin at once. But we are digressing from our subject. Trade in China is full of risk, and replete with trouble, but the fortunes with which China merchants retire shew that it pays, and with a prospect of gain English merchants fear nothing.

Now for the manners and customs, not that in going to China we need adopt them, but that we may know what we have to expect; perhaps if we find them less barbarous than we fear, that we may not utterly ignore them.

First of all human institutions comes marriage, and as the most interesting it is the first that shall occupy our attention. In making a match, the first thing to be regarded is that the families are on a par one with another, the next to engage a professional matchmaker to conclude it. The Chinese are a practical people, and object to wasting time on any thing from which they are to derive no profit, and if love is labor lost what then is wooing. The Chinese vote it a nuisance, and hire some one to do it for them. The matchmaker goes to the father of the young lady and tells him that Mr. So-and-So, a youth of surpassing talent and sufficient means, desires to pluck a peach blossom from his tree; the stern parent replies gravely that he will ask a friend to manage the affair for him, and the friend and the matchmaker settle between them what shall be the amount of the betrothal presents. If the bridegroom is dissatisfied with the appearance of his perhaps unlovely bride, he can send her back, but he forfeits these presents, otherwise they are returned to him when his wife comes home. Few matches once concluded are broken off. A man being, we read, one day in a great passion with his wife got an immense stone, and shattered the pride of her kitchen—an enormous saucepan. 'Why did you not' said the neighbours, 'rather break her head.' 'Too much expense,' was the philosophical reply. A kettle costs only 100 cash, a wife two or three hundred dollars.

Love rarely enters into Chinese interiors, their system of crushing the affections—the shutting up of the women prevents it. One who has never been abroad cannot feel that yearning for one's native land, that when we have a moment's release from the affairs of our business, chokes us here. One who has not flirted cannot love, but these Chinese households are not so unhappy as one would suppose, the wife knowing that if she gives loose to her tongue and temper, if she neglects her household or ordinary duties, her husband can turn her out of doors; the husband think-

ing that if he drives her to suicide, and little will make a China-woman do so, he will have the expense of getting another wife, so they generally manage to rub on tolerably well together. Sometimes indeed the men take, as the law allows them, a complement of secondary wives; then unless they can afford each a separate house, they are convinced that neither Mormonism nor Islamism is a pleasant, even if a true creed; they soon learn that however charming one fair lady may be, with the exception of black eyes, she will soon possess no beauties when she gets a companion. Wise men will be content with one.

Weddings in China—although the ceremony of marriage is simple, the two merely pledging each other in a cup of wine, the symbol of the cup of bliss or misery they are henceforth to quaff together—are grand affairs. Plays and lanterns, gongs and bag-pipes, feasting and drinking, are all called in to dull sense, dazzle the eye, and drown reflection even in the poor family. Cooke describes the bride dressed in borrowed finery, seated on a barrel, the husband and his friends drinking samshee, and the bag-pipe screeching at the door.

The other ceremony of life, or rather the ceremony of death, is equally noisy, equally jolly. Chinamen like to have their coffins in their houses ages before they die; it is pleasant to look on the handsome dress, for they are richly carved, they are to wear below, when finally they are put into it. If it be convenient to bury them, they are carried to their grave amid the crash of gongs and the banging of crackers; if not they are laid by for a convenient season, the Chinamen hiring people to wait for them as they do to woo, and consoling themselves for the loss they have sustained by calculating the wealth, the dear deceased or, as they would say, the revered ancestor, has left behind him, and drinking samshee.

But if we are to go to China it will be better for us to seek out these customs there, only remembering to believe but one-half of what we see, scarcely anything, perhaps nothing, of what we are told. And speaking of this we have yet to allude to the difficulties in the way of acquiring the language. Dictionaries there are many, but the sinologue to whom you refer says, 'Oh they are all useless, wait till mine comes out'; grammars there are too, but you read the language has no grammar; you disbelieve it, but what are you to do?

Nor will the people help you out of your difficulty. They have an objection to barbarians speaking the flowery language at all. If you make the slightest error in pronunciation, they will affect to misunderstand you, and how are you to learn the accent from books. You must defer it till you get there, and then give yourself up to Cooke's abomination—the Chinese teachers.

With one of these, you learn from Cooke, you may possibly be able to speak after two years' study. If one wishes to go to China to study the Chinese, and not one's own countrymen settled there, one must make up one's mind to sacrifice two years. We have not patience to do this, so leave the subject of China in disgust. If we had thought of the language earlier, we should have been saved all our trouble. Echoing Mr. Cooke's sentiment that if we would do anything in China we must abolish Chinese, we sit down to wait until this is done for us.

- ART. IV.—1. *Report on the Criminal Administration of the Punjab for 1857.*
2. *The Punjab Darogah's Manual.* Compiled by LIEUT. COLONEL CLARKE, LATE OFFICIATING COMMISSIONER OF THE LAHORE DIVISION.
3. *Report of the Inspector of Prisons in the Punjab, for the year 1857.* By Authority. Lahore. 1858.
4. *The Jail Manual for the use of District Officers in the Punjab.* By C. HATHAWAY, M. D. Published by Authority. Lahore. 1858.
5. *Circular Orders of the Judicial Commissioner, Punjab.* 1853—1856 (inclusive.) Lahore. 1858.

WE propose to give a short account of crime in the Punjab, and the means taken for its prevention and punishment. Those, who make Blue Books their special study, and who look with greater interest for the publication of official returns and Government reports, than for the next Quarterly or the newest novel, cannot fail to have informed themselves that, in the Punjab, crimes are divided into four general classes, not according to the nature of the offences, but with respect to the degree of atrocity which attends their commission. The first class embraces the most heinous offences, all murders and crimes in which wounds have been inflicted with murderous intent. In the second class are comprehended culpable homicide and crimes accompanied with serious injury to the person, but in which no intention to commit murder is apparent. Common felonies constitute the third class; while the crimes of fourth class atrocity include the whole catalogue of misdemeanours. By this arrangement, an assault may be classified under any of these divisions, and dacoity, burglary, cattle-stealing, and a variety of other offences may appear as crimes of highest or medium atrocity, if the circumstances under which they are committed be aggravating or otherwise.

Heinous offences are uncommon in the Punjab. Thuggee is almost extinct. Not a single case was reported during the whole of last year. Dacoity, formerly a national and somewhat chivalrous crime, is now scarcely known. No bands of armed marauders patrol the roads, and plunder the houses of the rich. The Lattial is a stranger in the land of the five rivers. Between the prince and the ryot, there are no landholders with wide local influence to rouse an idle peasantry at their call for the defence of an imaginary boundary or the redress of a fancied wrong. Riots and affrays there are. But even these are

few, and spring from impulse and passion, not from premeditation and revenge. It is the pride of the Punjab Government, that under its vigorous rule gang crime has disappeared. Desperadoes have fled before the face of law, administered without rigid formalities, by men of strong common sense and manly English honesty. The police may be corrupt—where in India are they immaculate?—the physical aspect of the country affords many facilities for crime, the people are restless and impulsive, yet atrocious crime has been put down with a rapidity elsewhere unknown. Within the last six years, it has diminished one-half. In 1852, the crimes of first class atrocity numbered 415, while in 1857, notwithstanding the excitement of that memorable year, they amounted to only 195. There is a similar, though somewhat smaller, decrease in the second class of offences. In both classes, the decrease has been gradual, not sudden, and is therefore to be attributed to the vigour and efficiency with which inflexible law has been dispensed, and not to a combination of casual circumstances.

Probably the most common among the more heinous crimes is that of murder, not the deliberate crime of avarice, but murder from passion, impulse, jealousy, pride—a crime not inconsistent with much that is generous in the offender. All along the northern frontier and down the Derajât, where impetuous mountain blood warms in the veins of a people keenly sensitive to injury and swift to resent it, passion partakes much of the character of chivalrous impulse, and the victim of the law is not unfrequently a man of high and ardent feeling. But even among these tribes the force of law has asserted itself, and men of note among the mountains, whose hands were reddened in the older times with more than one murder, have been heard to lament over the loss of what they termed the sports of bye-gone days. The next fertile source of bloodshed is woman. How many victims have been sacrificed at her shrine, since first the fatal charms of Helen sowed discord between the East and West. The rape of Io, we are told by the Father of History, was the beginning of wrongs. But the oriental character must have become radically changed, since the days when Herodotus recorded that “the Persians consider that, while none but wicked men carry off women by violence, fools only trouble themselves about them when they are once taken away, because they could never have been carried off, unless they had been consenting.” (Clio. 4). A return to the philosophical indifference of the old Persian worthies is, in this country where the marriage tie sits so lightly, a consummation devoutly to be wished. Murders arising from social ~~causes~~ are the most difficult of all to suppress, because they are committed under the influence of momentary uncontrollable ex-

citement, when the sanctions of law are entirely absent from the memory. The insulting glance, the angry word, the deadly blow, follow each other with such startling rapidity, that the crime is consummated almost before the intention is formed. Such murders are now confined chiefly to the frontier population. They also occur not unfrequently among the Jats. These Jats have a custom of claiming a right to the custody of a deceased brother's wife, and in many cases, as was usual under the Levitical economy, to marry her. Not unfrequently this claim of an indefeasible right in the widow is disagreeable to the woman herself, who prefers to marry into another family—a course which infallibly gives rise to quarrels sometimes ending in bloodshed. In the course of last year, a case came under the writer's observation, in which a Sikh Jat, smarting under the supposed disgrace brought on his house by the marriage of his widowed sister-in-law to a man of another family, cut down the woman, her husband and her child, and then drowned himself in a tank. The records of the Criminal Courts contain many such instances of the fatal effects of rage and jealousy.

Making allowance however for cases of this kind, heinous crime is by no means frequent in the Punjab. It is not with crime of the first class, nor yet of the second, but with offences of minor magnitude, that Government has now to deal in the way of reform and prevention. In these too there has been considerable improvement within the last four years. The question indeed has often been raised whether, granting that heinous crime has been suppressed under British rule, it be not equally true that petty crime has increased. In 1852 this question attracted the attention of the home Government, and at that time the general impression seemed to be that minor crime had certainly not been put down with the same vigour and success, as offences of a blacker dye. This impression was fully justified by the Punjab criminal statistics, and the Chief Commissioner, while admitting its general truth, attributed it to the facilities for the escape of petty criminals arising from "the distance of our Courts, the delays in justice, the inexperience of officers, the indolence and indifference of the people, the technicality of our system, and the extent of proof which it demands." (Circular 68 of 1854). Offences of the third and fourth classes had been steadily on the increase from the commencement of our rule, and they continued to become gradually more and more numerous up to the year 1854. How much of this apparent increase was due to the greater efficiency of the police in detecting and reporting offences, we forbear to enquire. It has become too common to take refuge from damning facts of this kind behind the specious plea of increased zeal and intelligence on the part of

the police. Allowing this excuse its full weight during the earlier years of our Government, when the police were untrained and officers were almost exclusively engaged in laying deep and broad the foundations of a new power, it seems scarcely adequate to explain the steady growth of minor crime, up to so late a period as the year 1854. This becomes the more apparent when it is remembered that the percentage of acquittals to convictions likewise increased, a fact which is quite inconsistent with any very great improvement in the efficiency of the detective force. Nor is it sufficient to urge a greater willingness on the part of the people to give evidence, arising from the certainty of our law and the lessened fear of abuse and maltreatment. For the people do not sympathise with us in our efforts to check crime. They are most unwilling to render assistance to the police, and give evidence in our Courts with the greatest reluctance.

We are therefore compelled to admit that, immediately after the introduction of British authority into the Punjaub, while serious crime became almost extinct, there sprang up under the shadow of the law a weedy harvest of minor offences. Was this to be wondered at? Was it not natural that with the introduction of law and order, turbulent and lawless men, accustomed to the excitement and freedom of a rude Government, should seek an outlet for their rapacity in stealthy crime, which no speed of communication and no perfection of police communication can altogether prevent? If we analyse the criminal statistics, we shall find that it is to secret and profitable crime of a minor kind, that the old marauding tribes of the Punjaub have now betaken themselves. To take the third class of offences, the common felonies, we find indeed that on the whole there has been a marked and steady decrease within the last four years. In 1854, offences of this kind numbered 24,103, while in 1857 the aggregate amounted to only 17,875, being a decrease of more than one-fourth. But let us analyse this. By the arrangement which prevails in the Punjaub, the class of common felonies is made to contain only burglary, simple theft, cattle-stealing and one or two other offences, which are of rare occurrence and therefore need not be separately mentioned. Now from 1852 to 1854, the cases of burglary rose from 3,630 to 4,213, and in 1857 they numbered 4,397. The percentage of burglaries to the total offences of the third grade has progressively increased from $17\frac{1}{2}$ to $24\frac{1}{2}$ per cent. Simple theft and cattle-stealing, on the other hand, have decreased, although cattle-stealing was more prevalent in 1857 than in the previous year. Petty larceny is a crime common to all classes, and prevails most of all in the neighbourhood of large cities. Cattle-theft is de-

culiarly the crime of the pastoral districts lying in the centre of the Doabs of the Punjab. It is scarcely considered a crime by the natives. Those who suffer from it look upon it more in the light of a nuisance than a felony, while to the minds of the perpetrators it assumes the character of an honourable calling. Boys are taught to earn their first turban by the theft of a buffalo or a cow.

Extraordinary facilities are afforded for cattle-lifting by the peculiar nature of the Punjab plains. In the centre of each of the Doabs, lie extensive sandy plains, covered with low brushwood, or the tall jungle-grass. Here and there at vast distances by intervening solitude is planted a lowly hamlet, with a small batch of stunted sugar-cane or half-grown corn forced from the reluctant soil. The population is scanty and scattered. Their chief wealth consists in their goats, their buffaloes and their cows; their chief food coarsely ground corn and the milk which their herds supply. Into these jungle tracts, the villagers, skirting the borders, send their cattle under the charge of a boy, sometimes of their women or blind old men, to crop the herbage where some lingering pool has afforded to the neighbouring soil a little juice and verdure. Scattered singly up and down the plain, wherever their instinct leads them in search of food, hidden from the neglectful herdsmen by the intervening bushes, the wandering cattle fall an easy prey to the cattle-lifter, and before the theft is discovered the prize is miles away; mingling with the large herds of the grazier in the centre of the waste. It is surprising with what patience and accuracy the professional trackers will follow the thieves through these solitudes, guided only by the faint trail left in the mutable sand. For forty or fifty miles together they will follow the trail and pounce on the thieves, when they thought pursuit had been eluded. Tales of fiction or of military adventure, and books of travel amid the scenes of savage life, have given world-wide fame to the acute instinct of the Indian trail-party and the Hot-tentot on the 'sfoor.' But the dusty records of crime in the Punjab contain instances of the sagacity of the Khojce, or professional tracker, as wonderful as either.

Cattle-lifting has been the subject of special legislation. The attention of the officers of the Commission has been particularly directed to its detection and suppression, and a combination of fine and flogging, or imprisonment, has been specially introduced as its appropriate punishment. Under these vigorous measures which have been adopted, cattle-stealing, which never was a calling followed by the class of hardened offenders, is gradually diminishing.

Burglary there is almost the only crime which is decidedly on
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the increase. It is not only relatively, but absolutely, more prevalent now than it was ever known to be before.* The burglars are the really criminal population of the Punjaub, and are deterred by the vigilance of Government alone from betaking themselves to more open and violent crime. During the excitement of 1857, the Cis-Sutlej States and Mooltan were the two divisions of the Punjaub which were most disturbed, and in which the power of the law was least felt. Accordingly, in these divisions, the burglars betook themselves as of old to the roads, and highway robberies became exceedingly prevalent, as the following extract from the Criminal Report of last year will show;—"In the Cis-Sutlej States, while simple highway robberies have doubled, there has been a great decrease in burglaries, thefts and cattle-stealing. In the Lahore Division, theft has decreased to a remarkable degree, while burglaries and cattle-stealing cases are rather more numerous than in 1856. In Mooltan, thefts have diminished considerably, while highway robberies have increased from 4 to 15, and there has been a large increase of 542 cases in cattle theft." With the return of order the footpads will again fall back on their burglarious callings. The ranks of the burglars are supplied by the Nuzars, the Sansars, the Pukkewars, the Bhowras and other outcast and gipsy tribes, who formed the old criminal population under the former regime. These men, by profession beggars, vermin-hunters, acrobats, without local or social attachments, by disposition and training callous and indifferent to pain, outcasts from society and with nothing to lose, deterred by a vigilant police from taking to the roads, fatten on systematic and profitable burglarious crime. Apparently the poorest of the poor, they are yet in many cases able to pay largely for shelter from the arm of the law. Miserable reed huts form their only shelter from the heat and cold, and vagrancy is their only calling. Wandering often from village to village in strolling parties to display their gymnastic feat, they pick up such scraps of local information as favour their criminal designs. It is believed that among many of their gipsy tribes there exist organised societies for robbery and theft, with ramifications through many villages far and near and a system of operations complete in all its details.

The state of property in India affords many facilities for the perpetration of burglary. Money is not invested, but locked up

| * Year | Cases |
|--------|-------|
| 1852 | 3,630 |
| 1853 | 4,130 |
| 1854 | 4,213 |
| 1855 | 3,498 |
| 1856 | 4,148 |
| 1857 | 4,397 |

in worthless boxes, buried in chambers protected only by mud walls or rotten doors, unguarded and almost forgotten, offering a tempting bait on which the burglar is not slow to seize. Large though this class of crimes is shown by the statistical returns to be, the reported burglaries constitute but a fraction of those which are actually perpetrated. In the Punjab, as in the Regulation Provinces, police officers are in certain instances prohibited from investigating cases of burglary, or taking any steps to bring the offenders to justice. "Section 2 of Regulation II. of 1832 enacts that thefts and burglaries, unattended with personal violence, shall not be investigated without a petition from the person injured, unless an express order to that effect be issued by the Magistrate or Joint Magistrate to whom the Thannadar is subordinate, and the Thannadar must act accordingly."* On first thoughts it might appear that the cases would be few in which a real sufferer would neglect to complain to the police. Not so. Whether from natural apathy on the part of the people, the corruption of the police, distrust of our courts, fear of offending the head-men of the village or whatever other cause, certain it is that in many parts of the Punjab, cases of this kind, which are brought within the jurisdiction of the police by complaint, are but a fraction, often a small one, of the number of cases of burglary committed, and the number of cases actually investigated is again only a fraction of the cases reported.

Burglary in the Punjab is a very migratory offence. It appears in and disappears from villages and districts with the most surprising suddenness. This is of itself sufficient to indicate that the wandering outcast tribes are the principal perpetrators of the crime. The arrival of a single vagabond in a village is often the signal for the commencement of a series of startling thefts, burglaries and robberies, which it baffles the police to account for or detect. The property is easily made away with or concealed, the locality of the crime is the heart of the village where the tracking-system, the never-failing resource of the Punjab police in difficulties, is totally useless, and the detectives are at fault. The dry sandy beds of streams, and the broken ravines formed by the torrents which in the rains cut for themselves a path from the mountains to the great arterial rivers, are the favourite hiding-places for stolen property. Trinkets of gold and silver and all small articles of value find a ready market in the shops of the Zurgurs or goldsmiths, where the crucible soon removes all risk of discovery. Effectually, to check burglarious crime, a strict watch must be kept over,

* Darogah's Manual, p. 73.

the migratory gipsy tribes. Surveillance is indeed by law enjoined. But in few instances is it more than nominal? Men belonging to these criminal classes are supposed to live always under the shadow of the Jail. An order from the Magistrate is at any time, without a specific charge, sufficient to authorise their incarceration in default of security for good conduct. It is supposed that their names are all registered in the Thannah books, that they dare not leave their villages without a ticket-of-leave from the Thannadar. 'The head-men of the villages in which they reside are presumed to be answerable for their conduct, and for reporting their departure from their homes.* All this looks very well in theory, and it would be well if it were put in practice. Unfortunately however it is not rigidly enforced. The law is at present a dead letter.

But not only ought the head-men of villages to be compelled to report the absence of any of these gipsies from their homes, if homes their rude grass shelter can be called, but they should be made responsible that the arrival of all strangers within their boundaries is duly intimated to the police at the Thannah. In a not far different but more disorganised state of society it was that Alfred the Great made every householder answerable, not only for the behaviour of his family, but also of his guests; if they enjoyed his hospitality for a longer period than three days. No stranger can prowl about an Indian village unknown to the head-men, who should be made to report the arrival and to become security for the good behaviour of every Sausce or other vagabond, whom they allow to enter or to remain in the village more than two or three days. Every member of the outcast tribes should be punished as a vagrant, who does not register himself at the Thannah nearest to his village, and none should be allowed to leave the village without the consent, not of the Thannahdar, but of the Lumberdars, who should become security for his good behaviour during absence. Head-men of villages are the parties whom we should strive to enlist in the interest of the police. Unless the people of the country heartily co-operate with us in our efforts to suppress crime, no mere police reforms will be of any avail. Village watchmen are only report-carriers between the village and the Thannah, and they are allowed to carry only such reports as are pleasing to the landholders, who are their bread-finders. One or two head-men, really determined to put down crime and heartily enlisted on the side of the law, would be infinitely more servicable than any number of Chowkedars. But the cases are few in which the villagers give any aid whatever to the police. Surprisingly active and

demonstrative they can show themselves, if a mutineer is to be caught, or a party of sepoys to be intercepted. There is a motive for that. The head of every mutineer in so much gold. But the same motive it is which renders them apathetic in other cases. Crime is a source of gain to the village head. In Ireland the odium in which the name of informer is held and a not groundless terror of the far-reaching arm of the assassin, are the great obstacles in the way of obtaining good police information. In India the police are at fault because criminals purchase shelter from the head-men of the villages, to whom crime becomes a source of profit. The landholders screen criminals from justice on the understanding that they will receive a share in the proceeds of crime. The moment this ceased to be a profitable course, they would drive them with ignominy from the villages. If the head-men give them shelter, how dare the villagers complain? A bold man must be he who would oppose the village heads. It is easier and cheaper to submit quietly to the loss occasioned by theft, than to oppose an organisation headed by the Lumberdar. Therefore it is that a large proportion of the crimes which are committed never reach the ears of the police.

Why should not Government set apart tracts of jungle or other land and deport the gipsy tribes for their colonisation, placing them directly under surveillance of the police and punishing every man who left the colony without permission? These tribes have no local ties. They are known to be thieves by profession. It is admitted on all hands that their coercion is a matter of necessity. Although the restraint would fall severely on the present race, accustomed to a free and roving life, yet their children would grow up with fixed attachments and in the course of thirty years or less, their wandering habits would be broken.* To have virtually a penal colony in the heart of the country is indeed to be deprecated, but unless some such plan be adopted to train the gipsies to habits of honest labour, to root them out of the villages where, though sheltered, they are despised and uninfluenced by the hope of ever raising their social position, it will be difficult to check the increase of burglaries. To insist on the responsibility of the head-men of the villages is not of itself enough. No Sausee would be sheltered for a moment were his crimes not profitable to his protectors. Fines are inoperative. If small, the village pays them from the proceeds of the burglaries; if heavy, the Magistrate dares not exact them through fear of being unable to show a clean revenue balance-sheet. Deport the criminal tribes from the villages, collect them in two or three separate colonies, where they can easily be watched, train them to habits of indus-

* See De Quincey's "Revolt of the Tartars" in his 'Selections' for an instance of this on a large scale.

try, remove them from a life of subjection to constant scorn and contempt, which has deadened all their better feelings, and something might be effected. Removal from the villages would be a great step in advance. In one district of the Punjab, where burglary was most discouragingly prevalent, and no vigilance of the police, no exertions on the part of the Magistrate, could succeed in bringing the criminals to justice, the Magistrate, as a last resource, bethought himself of stretching the law and playing the despot for a season. He accordingly ordered all the vagrants to be seized, and employed them in repairing the district roads, under the eye of the police. Wonderful was the success of this measure. Crime, at least burglary and theft, almost disappeared, and person and property became secure throughout the district. Might not all these tribes be settled rent free on unoccupied land, where the police can watch and control them? The penalty for leaving the colony should be, not imprisonment, but penal labour on the roads, the canals or other public works. What is the use of imprisoning such men? It never deters them from crime. It never reforms them. They are too poor not to find prison life luxurious, too deadened in feeling to be affected by its disgrace.

Having thus analysed the third class of crimes, comprising the ordinary felonies, we would now briefly advert to the fourth class, which does not require to be minutely discussed. This class includes a few common felonies, but chiefly those miscellaneous offences, falling short of felony, which are vaguely denominated misdemeanors. Child-stealing and coining are probably the only two felonies of this class which have decreased under our rule. It cannot be doubted that forgery and perjury have increased immensely in practice under our documentary and juratory system. But this is an evil which arises, not from the procedure of the Courts in itself, but from the general low tone of morality among the people, and which cannot therefore be remedied by legislative efforts. Simple misdemeanors naturally become numerous, in proportion as property becomes secure and justice certain. The criminal Court becomes the arbitrator in disputes which, with hot blood and under an irregular Government, lead to affrays and bloodshed. Within certain limits therefore increase in this class of offences is rather a hopeful than a discouraging sign. During last year, misdemeanors were less numerous in the Punjab than in 1856. Since the commencement of our rule however they have increased enormously, and even the apparent decrease during last year may be more nominal than real, considering the unparalleled excitement which prevailed, and the momentous crisis, which occupied the time and energies of every officer in the country. Most misdemeanors

nors are of very ambiguous character, and partake largely of the nature of injuries, for which the remedy ought to be rather in the Civil than the Criminal Court. At least they cannot with propriety be called crimes, nor can those who are convicted of their commission be in every case termed criminals.

For the Punishment of convicts the Punjab Government has provided extensive Jail accommodation. The Punjab prisons have sprung up entirely under British rule. In the Sikh times they were unknown. Tried by an unwritten law, which was administered and interpreted by irresponsible Judges, criminals were freely fined and severely mutilated, but seldom imprisoned or put to death. Political offenders were sometimes incarcerated at the will of the Sirdars or provincial Governors. In these cases, imprisonment was equivalent to death, for the shuddering victims were immured in foul under-ground vaults, where they were left to perish of hunger, or were let down into old dry wells, whence they never returned to the light of heaven. Only in the castles of the powerful chiefs however were seen—

The battled towers, the donjon keep,
The loop-holed grates, where captives weep

Ignoble offenders were seldom deprived of their freedom. In each of the large cities indeed, there existed a kind of prison called the kotwalee, but it was more a sort of 'lock-up' than a Jail in which criminals expiated their offences in duress vile. The army drafted numbers of the criminals into its ranks, and those who were not fortunate enough to escape into this city of refuge, atoned for their crimes by the forfeiture of their property or the loss of their corporeal members. Slitting the nose, cutting off the hand, severing of the 'tendon achilli' were the mutilations most commonly inflicted, and there are many prisoners now in our Jails whose tell-tale bodies bear silent witness to their former crimes. The civil Jail was the gateway of the city, to which debtors were chained and left to gain a meagre sustenance from the charity thrown to them by the passers-by. With the light of British rule and regular laws came the gloomy shadow of prisons and prison discipline. Many an old feudal fort became a receptacle for common felons. Within a few years from the annexation of the Punjab, every district under charge of a Magistrate had its own Jail for the incarceration of its convicts. The original plan of Government was to furnish accommodation for 10,000 prisoners in Jails of three different sizes. The largest prison was to be the great Central Jail at Lahore, intended for the reception of convicts sentenced to periods of incarceration exceeding fourteen years. Central second class Jails, capable of containing each 800 convicts,

were to be erected respectively at Rawul Pindee, Umballa and Mooltan, in which long term prisoners were to undergo their sentence; while in each of the districts of the Punjab, a third class Jail was to be built, with accommodation for about 250 men. This plan was most rigidly adhered to. At Umballa indeed only a third class prison was erected, and the great Central Jail at Lahore was never completed. Still, within a few years after the annexation of the Punjab territories, prisons were planted over the country as thickly as the halls of justice. These were speedily filled, and as early as 1852 the accommodation was found insufficient for the rapidly increasing number of convicts. Remonstrances were the natural result. The Government was startled to find that in a country where Jails had hitherto been unknown, and which contained a population only one-fifth as numerous as that of Bengal, more than one criminal was imprisoned for every two in the lower provinces. What could be the cause of this extraordinary disproportion, and of what remedy did it admit? Bearing in mind the legacy of crime and lawlessness to which we succeeded on our entry into the Punjab, it nevertheless became a grave and at the same time a startling question. Did not our laws make artificial crimes? Did they not magnify into great social offences acts which the people did not generally consider criminal, and which were not really prejudicial to a state of society little understood by us? Or were the sanctions of our laws suited to the character of the people? If Magistrates were energetic and successful in detecting crime, were they equally wise in the award of its penalties? It was felt that the punishment authorised by our laws bore no due reference to the motives of the crimes, which they were intended to suppress, and that laws, which had been found to work tolerably well in the other provinces of India under our rule, had been introduced into the Punjab without considering their adaptation to the peculiar habits of the criminal population. Whatever may have been the cause of the rapid increase in the number of convicts, immediate measures were required to check the evil, which had grown out of all due proportion to the population of the Punjab territories.

The expected issue of the new final code, which the Indian Commission had prepared, prevented any extensive measures of law reform being undertaken at that time. Matters were therefore allowed to continue very much in the same state in which they were. Some little good however resulted from the discussion which had been raised. Although it was not worth while to introduce reforms in the criminal law, which might be hasty and ill-considered, when a new code was daily expected which was to embody the collective opinions of some of the foremost of

English and Indian legislatures, considerable improvements were nevertheless effected in the matter of prison discipline. The practical mind of the Judicial Commissioner, Mr. Montgomery, seized the opportunity for suggesting the adoption of a system of rewards for good conduct in Jails. Mr. Montgomery's plan was based on the three following propositions, which had been approved by Government from a series of proposals embodied in a minute, which the Judicial Commissioner had submitted with a view to Jail reform:—

“ That good conduct in Jail should entitle prisoners to a remission of a portion of their imprisonment

“ That in addition to the ordinary evidence of such conduct, certain obligatory tests be established, such as the acquiring of a useful trade—the learning to read and write, and some progress in rudimentary education—and that the body of prisoners be formed into classes and gangs, out of which the most deserving would be appointed overseers and monitors

That good behaviour registers be kept, and that wooden badges and tickets be annually given, and that one year of exemplary conduct should entitle a prisoner to a remission of six months in the original term.”

These measures, it was hoped, together with a judicious application of fines and flogging to petty crimes, would keep the number of prisoners within due proportion. But, except in cases of signal service rendered by a convict, as a reward for which the Board of Administration for the Punjab had formerly authorised the instant release of the prisoner, remission of part of the term of imprisonment, as a reward for good conduct, was limited to criminals under sentence for petty felonies and misdemeanors. Persons reconvicted were expressly excepted from the benefit of the rule. The introduction of this system has been attended with the most marked success in the increased quiet and orderly conduct of the prisoners. Dr. Hathaway, in para. 87 of his last Jail Report, gives the following opinion as to the happy results which have followed from the adoption of the good behaviour system:—

“ The remission of a portion of the original term of imprisonment, as a reward in cases of special good behaviour, progress in reading and writing, or marked proficiency in any branch of the manufactures, as originally advocated by the Judicial Commissioner, continues to work well, keeping up the stimulus to quiet orderly conduct in the wards, and increased industry in the work yard. The total number of those who have been released from Jail on this account is 780, while others have had portions of their sentence, varying from three months to one year, remitted on the same ground ”

A progressive series of improvements, of which the more important will be noticed hereafter, introduced by the united efforts of the Judicial Commissioner and the Inspector of Prisons, completed the present elaborate system of Punjab prison discipline. Let us meanwhile enquire,—what is the ordinary life of a prisoner in the Punjab Jails? Suppose an offender apprehended, tried, convicted, and led off to prison and penal captivity. When the massive gate yawns to receive him, his property is taken from him and carefully registered, ticketed and preserved, to be returned to him on the expiry of his sentence, if it be for less than three years. But if he be doomed to imprisonment for more than three years, his property is all sold, and the proceeds are kept in trust for him till he quits the Jail. Immediately on his entering the prison, he is made over to the barber to be shaved or have his hair cut, according to circumstances, unless he be a Sikh. He is provided with a blanket, a suit of Jail clothing and a sleeping mat. The suit of clothing consists of a woollen cap, a coat and a waist-cloth of a bright yellow colour, and is made of a uniform and peculiar pattern. When the Civil Surgeon makes his daily visit of inspection to the Jail on the following morning, the prisoner is presented to him for examination, and the Surgeon certifies his capability for labour, and recommends such occupation as may be best suited for him. Whether labour is to be with or without fetters, depends of course on the nature of the offence for which the prisoner is undergoing sentence, and in some cases immunity from labour may be purchased by payment of a fine. Criminals under sentence of imprisonment with labour in irons wear these fetters, which are commonly used in all Indian Jails. Convicts, sentenced to labour without fetters, wear only a ring on each ankle, and those suffering simple imprisonment wear one ring only. This arrangement is adopted, not only as a means of easily distinguishing these different classes of prisoners, but as a precaution against escape. Jail-breakers, notorious offenders and re-convicted prisoners must, as a mark of distinction, also carry a light ring on the left wrist. Besides these general distinctions, the male prisoners are all classified and distributed in the wards, according to the nature of the offences for which they are incarcerated. The women are confined in a separate ward, but are not classified. The boys and juvenile offenders are kept distinct from both. Of course the arrangement of prisoners professes to be only an approximation to accuracy. The nature of the daily labour, which the different prisoners are fitted to perform, and many other considerations, prevent perfect accuracy of classification. It is not possible to give a complete idea of the ordinary routine of duties in a pro-

perly conducted Jail will be gathered from the following quotation from Dr. Hathaway's Jail Manual* ;—

* "At gunfire or daylight the prisoners are roused; the Lumberdars† report to the turnkeys (before the doors are opened) if all the prisoners are present.

"The barrack doors are opened, the night pans removed immediately by the sweepers, bedding rolled up, and taken out into the air, the floor and walls of the barracks are 'leaped', and the yards swept and cleaned.

"Work should be commenced by all, within half an hour after the doors are open.

"From 12 to 1 an hour's rest, during which the '*chubena*' or parched gram is served out to those prisoners at hard labour who receive it.

"From 1 to 3 or 4 P. M. work is required.

"At 4 o'clock, dinner.

"At 4½, school.

"At 5½ or 6, according to the period of the year, school ceases, and the prisoners are to be carefully searched, counted, and locked up."

From sunrise to sunset therefore, about 8 or 9 hours are devoted to labour, one hour or one hour and a half to education, and the remainder of the time to food and rest.

During the year 1857, the nett value of convict labour in the Punjab amounted to Co.'s Rs. 1,44,314. This however is far below the productive power of Jail labour. Dr. Hathaway has shown most conclusively that the work of nearly one-half of the convicts is wasted in the performance of menial duties, which could be done equally well, if not better, by half the number who are at present employed in them. A consideration quietly paid to the Darogah, a service rendered to a Burkundaz, will procure for a lazy prisoner the coveted reward of being put on the list of "prison servants," who are employed as cooks, hospital attendants, barbers, water-carriers, &c. To such an extent has this evil grown that, in one Jail, out of 257 prisoners sentenced during the last year to labour, only 36 were employed in manufactures. Measures, however, have been taken to put an immediate stop to this reckless waste of labour, and doubtless the financial results of next year will show a decided improvement in the economical management of the Jails, and that prison labour has been rendered much more productive. It would be most desirable to abolish altogether the privilege of purchasing immunity from labour by payment of a fine, and to repeal the law which permits simple imprisonment without labour. The sick, the aged, and the infirm, can be exempted from work on the recommendation of the Civil Surgeon.

* Para. 24—27.

† The Superintendent of each ward, who is selected for his good conduct and appointed to this duty, is called Lumberda..

But, is were well if every convict without exception, 'who is physically fitted for work, were made to contribute by his labour to the expense of his support. In this country, unless imprisonment be rendered disagreeable by 'hard labour,' men soon become reconciled to the mere loss of liberty. It almost ceases to be a punishment. And if it be true anywhere that idleness is the parent of vice, it is doubly so in Jail. Regard for the moral improvement of the prisoners ought to lead us to award every convict at least so much labour, as will keep him actively employed, and prevent that morbid state of mind and morals which is the inevitable consequence of idleness. A writer in the *North British Review* believes that "the basis of all true prison discipline is WORK, remunerating and self-supporting. The treadmill, labour machines (which do nothing but fatigue the prisoner)—all work that is primitive only, and not productive, is worse than useless; but all work that has an object, is the most valuable agent the prison reformer has." Work that has an object with it will keep in good order and good condition the 'most refractory and the least robust of the whole establishment.' It is not the exacting of toil but teaching habits of steady labour that is the secret of reform. Habit gives the victory over nature. As Bacon says;—"force maketh nature more violent in the return, and custom alone doth subdue and alter nature." It has been gravely argued that prisoners, on entering Jail, should be set to employments different from those to which they have been brought up, as being more primitive and a better test of progress and diligence. We conceive that this is a grand mistake. In the first place, there is a great waste of productive power incurred in the substitution of untrained for skilled labour. Besides this, a trade is taught which the prisoner will never practice after his release, and he is made to forget in a measure the occupation to which he will most naturally betake himself on his return to his village. If a man has fields to plough he will not sit down to make shoes, nor will the shoemaker betake himself to weaving. The prohibition of out-door prison labour of course prevents in a great degree any allotment of agricultural labour. Still that is no reason why, as is often done, labour should not as far as possible be assigned with reference to the previous calling of the prisoners. An old prisoner is not likely to take easily to a new trade, so that while his labour will be less profitable, it will at the same time be so repulsive, that he will never become habituated to regular work. While labour should be hard enough to be felt as a punishment, it should never be made positively repulsive.

We confess that we should like to see labour made somewhat

remunerative, to the prisoners, by part of the profits being made over to the well-behaved among them on their discharge from Jail. The Prison Labour allowance presents a large fund from which this might be done without any loss to Government. This is an allowance granted for district improvements in lieu of outdoor prison labour. In the Punjab the grant amounts to Co.'s Rs. 6,000 monthly. Most districts could perfectly well dispense with it. In fact it is seldom fully drawn, and when drawn is often devoted to purposes to which Government never intended that it should be applied. Government might, without injury to district improvements, recall this grant, and allow a certain proportion of the profits of the labour of each prisoner to accumulate as an allowance for him wherewithal to begin life when he is discharged—for in most cases he is turned out from Jail penniless, house and holding having been sold to make restitution for the injury done by his crime. A little recompense for his labour, it need not be much, would give him an interest in his work without diminishing the hardship of it, and would keep him from the temptation attendant on the poverty which meets him on his release. It might be better perhaps to cause restitution to be made from these savings, rather than from the sale of his goods, and to refuse him release from prison till he repay from his earnings, when payment can possibly be made, the injury caused by his crime. At least the house of the prisoner should be sold only when all other resources fail. With many criminals, the possession of a house is the only tie which binds them to a fixed locality. Deprive them of it and they become vagrants. It is true that in many cases the exaction of this form of prison labour would be no check on the outbursts of crime, but with some criminals it would be, and any scheme which hold out even the possibility of reform in a few cases seems worthy of a trial.

We regret extremely to observe that Dr. Hathaway does not report progress in the matter of prison education. He states that there has been "a lamentable falling off in the state of instruction and proficiency of convicted prisoners." Whereas in 1856, out of 11,442 individuals, 5,665 were under instruction, and 2,439 could read, we find that in 1857 only 2,564 were under instruction and only 2,005 were able to read. A totally different result might have been expected, considering that an entire twelvemonth had passed away, in which both progress and proficiency ought to have mutually increased. There may possibly be a valid reason offered as to the prisoners being backward in their studies, but there appears no justification of their not being taught; yet by the returns for 1857, only one in every four is reported as under tuition, whereas in the pre-

'vicious' year the proportion was double. The result is thus 'shown to be retrogression instead of advancement.'

Prison education has now ceased to be an experiment. Schools have been established in every Jail in the Punjab since 1854. Even previous to that time, prisoners were under instruction in the Lahore Central Jail, and the Jails of Umritsur, Goojrat and several other districts. But from that year education ceased to be a partial measure, and was introduced into every Jail after the plan which had been adopted with success at Mynpooree and Agra. Each prisoner was allowed the option of attending school after the usual labour of the day was over, or of continuing for another hour at that employment in which he had been occupied during the day. Those who preferred instruction to work were arranged in classes of twenty or thirty, presided over by a monitor, to which post each prisoner might hope to rise, if he applied himself with diligence to his studies and made progress in his education. The method of teaching adopted was very similar to that which is followed in infant schools in England, by hanging up, against the wall, the letters of the alphabet in large characters, singly or in combination, and requiring the whole class to repeat them aloud after the monitor. For a time, this education scheme was taken up with a vigour which gave promise of success beyond what had at first even been hoped for. It is sad that a scheme ushered in with such glorious promise should fail from neglect. It is impossible to attribute the retrogression to dislike of education on the part of the prisoners. Where so many inducements are held out to learn, where proficiency and diligence lead to reward, to lightened labour, to interviews with relatives, and even to ultimate release, it is impossible that the candidates for education should be few. Let us hope that the cause of the retrogression during the past year is to be attributed to the events of the year, rather than to a decline of interest in the moral progress of the criminal population. The educational statistics lead us to believe, as we are willing to do, that this is the true explanation of the decline.* For the first three years, there was a steady and remarkable increase in the number of convicts under tuition, not only absolutely, but proportionately to the number of uneducated prisoners in confinement. In 1857, the number of those attending school suddenly fell to a point lower than it had ever been, since the time when education was introduced into Jails. Let us therefore adopt the most charita-

| Year | Could neither read nor write | Under tuition |
|------|---------------------------------|------------------|
| 1854 | 9,581 | 3,587 |
| 1855 | 8,772 | 3,944 |
| 1856 | 9,010 | 5,665 |
| 1857 | 8,948 | 2,564 |

ble view, and attribute not the decrease to want of interest in prison education, and let us hope that with returning peace and order, Jail education may be encouraged with a zeal increased in proportion to the neglect from which it has suffered during the past year.

Chief among the means of maintaining the discipline of the prison, we have already mentioned the good-behaviour system introduced by Mr. Montgomery in 1834.* But this was only part of a more extensive scheme of rewards and punishments. Well-behaved prisoners are, under certain restrictions, allowed to have interviews with their relatives, a privilege denied to those who have contravened the Jail rules and are idle or disorderly. Those who make progress in learning, or acquiring a trade, and who are generally well conducted, may be allowed, as a mark of approbation, to wear a dress of a different colour from the bright yellow Jail costume, and are eligible to a Lumberdarship, or to the office of cook for the ward or of monitors for the school, and in some few cases, for special merit, may have their fetters removed. On the other hand, the indolent, the disobedient and unruly prisoner may have his daily tale of labour increased, his diet reduced, or he may be flogged and placed in solitary confinement. Of all forms of punishment, none is so much dreaded by the native as solitary imprisonment. At first sight this may seem strange. To the dreamy native, who spends his days in the stupidity of perpetual vacancy, solitude would appear never to be unwelcome. Immured in his cell, left alone to his day-dreams, his food supplied in plenty and at regular times, separation from the common herd of prisoners would seem rather to be a luxury of prison life, than an enhancement of its penalties. It involves however two things fatal to native happiness—hard steady labour and ignorance of the gossip of the day. Every prisoner in solitary confinement is employed in the laborious work of grinding wheat in a standing posture. The position alone is to a native a great aggravation of the penalty of incessant steady labour, and there is no pleasant gossip for him during the hour of rest from his daily toil. The talk of the market place, the village scandal, which no jealous guard can exclude from the prison wards, cannot penetrate to the solitude of his cell. His mother or his boy can no longer smuggle the little opium or tobacco at their stated visit, to be enjoyed in secret with a relish increased by the dangers attending its procuring. Fifteen successive days of this separation from his little world is to the native mind no slight aggravation of the miseries of prison life. In the opinion of the former Judicial Commissioner, Mr. Montgomery, solitary confinement has even more recommendations than this. It “possesses, probably, every requisite in the rationale of punishment. It

'is peculiarly efficacious in India. In the eyes of the natives it is 'invested with the idea of terror, and produces an effect on their 'minds the most enduring and the most wholesome. Whenever 'tried in the Punjab, it has been attended with the happiest results.'"

The cells are allotted first of all to criminals reconvicted, then to refractory prisoners or those punished for breach of discipline. If, after the allotment of the cells to these prisoners, there is any spare accommodation, it is set apart for men convicted of the crimes most prevalent in the district within which the Jail is situated and for the suppression of which stringent measures are required. Some laxity has hitherto prevailed in the enforcement of the rules, but whenever they have been rigidly adhered to, the results have been most beneficial. In his Jail report for 1857, Dr. Hathaway writes;—

"The aggregate of all those, who have been imprisoned in solitary cells is recorded as 4,131, but this does not represent so many individuals or distinct cases, as, the maximum period which a prisoner passes in solitary confinement being restricted to only 15 days, and the cases in which it is made use of being generally that of recommitments, it necessarily follows that the same prisoner is frequently placed in a solitary cell four or five times during the twelvemonth.

"I am of opinion that if the system of solitary imprisonment was more rigidly carried out, it would tend effectually to keep down the number of reconvictions, and thus secondarily to decrease the average number of those sent to Jail. Not only are the solitary cells not kept fully and regularly occupied by prisoners, but there is more or less of association with others permitted, when in confinement, under the various pleas of taking in food and water, giving and removing the daily task-work, cleaning the cell, &c &c."

It would be most desirable to increase to a still greater extent a punishment admitted on all hands to be, in this country, most efficacious. But unfortunately the most approved punishment is, in this instance, also the most expensive, and any great addition to the solitary cells cannot therefore be hoped for. At present there are only 403 solitary cells in all the Prisons of the Punjab. It is therefore quite out of the question to attempt to introduce what has been called the 'separate system.' Only an exceedingly small proportion of convicts can undergo solitary confinement at the same time. Imprisonment in the wards must necessarily alternate with imprisonment in the cells. But a judicious allotment of the few cells, which have been built, is of the first importance for the maintaining of prison discipline. Prison Economists in England and America are opposed to the practice of solitary confinement, and in England it has been partially

abandoned. Undoubtedly, when severely enforced, it is the most injurious of all punishments in England. There is, however, an inconceivably vast difference between the temperament of the criminal population of Europe and of India, and the system here in force, of alternate confinement in solitude and in the common wards, hits a happy medium of severity, which has been found by experience to have the most salutary effects.

Notwithstanding all the efforts used by Government to keep the number of convicts within due limits, the year 1857 overtook us with crowded wards, and a complement of prisoners far exceeding that which the Jails were calculated to accommodate. When the first warning note of the coming troubles broke upon the profound quiet of the Punjaub, it startled the whole country into vigilance and action. The danger was imminent and it was nobly met. Every precaution was taken to prevent the circulation of intelligence among the natives. The guards at the ferries were doubled, and suspicious travellers arrested. The gossip at the village well was reported, the talk of the idlers lounging under the shade of the peepul tree was brought in by spies. No one was safe from arrest. Idle words, which, in ordinary times, would have been considered only a mirth-provoking jest were distorted by suspicion into grave charges of treason or conspiracy. The number of apprehensions on political charges was immense, and the prisoners were of all classes and degrees of influence, from the naked fakcer to the great chief of the city. And when at last the native Poorbeah regiments broke away, the recaptured deserters swelled the list of arrests to an enormous extent. What was to be done with their men? They could not be released. To have let them go, would have been to scatter fire-brands over a country already ripe for conflagration. To keep them under surveillance was impossible, for there was no adequate agency, and what few men were at command could themselves at first scarcely be trusted. The Jails were already crowded with prisoners under sentence for their crimes, and how could they make way for men whom it was necessary indeed to watch and secure, but few of whom were convicted of any definite offence? The necessity was urgent.

The Cis-Sutlej states were the first to feel the shock of the earliest and severest wave of the rebellion. Intersected by the possessions of native princes, with a frontier extending to within a few miles of the great source and centre of the mutiny, and with a large Poorbeah force at head-quarters, it is not surprising that this division of the Punjaub was disturbed in no ordinary degree. At an early day, therefore, especially in this division, the question of accommodation for political prisoners became really pressing. The only feasible means of securing them was by a tem-

porary clearing of the Jails and incarcerating the political offenders in place of the criminals released.* Various were the measures suggested. The first and most obvious was that of either entirely commuting sentences of imprisonment to fines and flogging, or reducing the term of incarceration in consideration of the stripes and mulct. In every case in which fine or flogging seemed to be an appropriate punishment, it was resorted to in preference to imprisonment, and when insufficient, a short term of imprisonment was superadded. This system of punishment was substantially only a revival of the old regulation law, which had been abolished in 1834. Flogging indeed was revived in certain cases at a later date, but it was not allowed to be combined with imprisonment. In the Punjab, it is true, considerable laxity had prevailed, and it was common in some districts to punish cattle-stealing, theft, and similar crimes, with stripes and imprisonment. This practice however, which had hitherto been only tolerated, now received the sanction of the Provincial Government, and the catalogue of crimes, for which a combination of stripes and imprisonment was considered the appropriate punishment, was widely extended. The immediate effect of this was to discharge after flogging, or to imprison only for a short period, many criminals who, under the old rules, would have been sent to Jail for a long term, and by this means some little accommodation in Jail was secured to meet the pressure caused by the apprehension of so many political prisoners.

As this temporary law, however, had effect only prospectively, it became necessary to devise some plan for clearing the Jails of many of the convicts imprisoned previous to the outbreak. All the measures were accordingly adopted with more or less success, the combined effect of which was such, that, notwithstanding the large number of men imprisoned either on suspicion or for the commission of offences against the state and other causes arising out of the rebellion, the number of prisoners actually in confinement at the end of the year was less than it had been at the close of 1856. Of all the plans which were tried the most effective was the remission of portions of the term of imprisonment, on payment of a fine by the criminal or the submission of his person to the lash. Fine was the first substitute adopted in

* We annex the following interesting extract from Dr. Hathaway's Jail Report to shew how the mutineers were sometimes employed in Jail. "In one Jail, 80,000 Enfield Rifle cartridges were made up for the Army; the prisoners who made them being sepoys of the native Regiments, who had mutinied under the false pretext of being afraid to touch them. The work was done efficiently and expeditiously, and the sight of these men, in their prison garb, seated at long tables, quietly making the paper cylinders, or casting the elongated bullets they objected to use as soldiers of the state, struck me, at the time of my visit, as a remarkable instance of retributive justice."

lieu of remission of part of the term of imprisonment ; flogging soon followed. The fine demanded was proportioned both to the nature of the crime for which the prisoner was incarcerated, and to the length of the unexpired portion of his term. But most prisoners were too poor to pay, the necessity for clearing the Jail was urgent, and there remained in many cases no other course but to flog and release. We have already seen that remission of part of the term of sentence as a reward for good behaviour had been introduced several years before, and formed one of the distinguishing features of Punjaub prison discipline. The remission now introduced was of a totally different nature, being dealt out to all alike, except prisoners of the worst character, on their submitting to the prescribed conditions—a course which although it was a temporary necessity, was calculated to have the most injurious effects on the discipline of the Jails. Few of the prisoners had logic enough to distinguish clearly between remission of sentence as a reward for good behaviour, and remission on payment of a fine. To their minds the result was the same—they were released from Jail. And whereas the one purchased his release openly, probably no one of them believed that the other was not obliged to buy his discharge by a secret bribe to the Darogah. Indeed one of the most remarkable facts brought to light by the measures taken to clear the Jails was, that nearly all those, who at first paid the fine for remission of sentence, were men whose names had been previously entered in the Darogah's list of well-behaved prisoners. Such an indiscriminate remission of sentence took away at one fell swoop every inducement which had been held out to orderly conduct in Jail. Many well-behaved prisoners, who could not pay for their release, petitioned to be flogged and let go. But it was against all rule to whip a prisoner whose conduct in Jail had been free from fault. Exasperated at seeing the prison gates open for the return of their disorderly fellows to a freedom which was denied to them, unable to raise money enough to purchase their liberty withal, they threw off restraint, and endeavoured to secure by disobedience and bad-conduct, what had been denied to their humble petition. Fortunately the necessity for the indiscriminate clearing of the Jails has gone by, and the measures forced into operation by a temporary pressure have ceased with the necessity which occasioned them. But the short period of their prevalence had nearly undone the work of years of laborious improvement in prison economy. Nothing can have a worse effect on prison discipline than any proceeding which renders the sanctions of the law uncertain. Punishment in such cases, becomes a kind of lottery in which every one expects success for himself. A bad law, the sanctions of which are sure, is

better than a good law laxly enforced. Uncertainty of punishment is an evil greater than undue leniency or excessive severity.

Apart altogether from the temporary emergencies occasioned by the mutinies however, the question of Jail accommodation is an embarrassing one for the Punjab Government. Even in peaceful times there were more prisoners in confinement than the Jails could accommodate consistently with supervision, safety and health. Crime is on the decrease, yet the Jails are too full. The most obvious and easiest mode of meeting the difficulty, for a time, is by adding to the wards in Jails, whose area will admit of it—a measure which is now in contemplation in regard to several of the district prisons. But besides being expensive, this plan is the least creditable of all, because it accomplishes simply nothing. Crime is not diminished; criminals are not reformed. The time will come when the new wards will also be overcrowded, and matters will be worse than ever. The Magistrate is not the vicegerent of God that he should punish crime as a violation of the Divine Law. If he does not prevent crime he bears the sword in vain. Every system of human punishment which is penal without being reformatory, is faulty. The work of punishment is easier than that of reform. It saves time, it saves trouble, it calms conscience, to believe that criminals are hopelessly depraved and that the idea of their reformation is Quixotic. It has been wisely said that it is easier to extirpate than to amend mankind. But men are seldom deterred from crime by the fear of punishment alone. The certainty of present gain proves too strong for the fear of distant evil. To be effective, the evil, though distant, must be as certain as the present gain. Good detective police are therefore more efficacious than Draconian Laws. Police reform, however, is a matter too uncertain to wait for, and the next best method of preventing crime is to alter the sanctions of the law, so as to strike at the motives which lead to it. The nature of the punishment should be determined by the motives which lead to the crime, the severity of the punishment should be regulated by the local prevalence of the offence and the difficulty attending its suppression.

We have reason to believe that important modifications of the Criminal Law are at present under the consideration of the Punjab Government. One of the most important ends to be attained is the abolition of artificial crimes. Nothing can be more perplexing to the moral sense, than the arbitrary creation of offences by the recognised distinction between 'mala prohibita' and 'mala in se'. Our criminal law ~~ought~~ to recognise the latter only. For the former the remedy

should be sought in the Civil Courts, which in the Punjab are quite as speedy in their operation as the Criminal Courts. The recognition of artificial crimes blinds and confuses the moral sense, by making penal the commission of acts not in themselves morally or socially wrong, and the repeated violation of these prohibitory laws leads to a contempt for law in itself, and a general incapacity of distinguishing right from wrong. The unmitigated evil of such artificial distinctions as that of real and prohibited crimes, is perhaps less sadly apparent here than in England. What good can follow from hauling a little urchin to prison for playing marbles in the street, or lodging in Jail a labourer out of employ, because he snared a pheasant or a hare to procure a morsel for his starving family? But even in this country there are many blots on our criminal code, not the least of which are the Abkaree and similar laws. To manufacture salt or cultivate opium is no crime, though it be called so by law. Why should not Government seek its remedy against the violation of these laws by the ordinary Civil Procedure, which in the Punjab is as rapid as that of the Criminal Courts?

Having narrowed the field of crime by the exclusion of all artificial offences, the principle, which should guide in the selection of punishments for real crimes, is one which sounds like a truism—that every man, who breaks the law, should be a loser thereby, and if possible a loser of the object which tempted him to commit the crime. This principle, however, cannot be applied with anything like exactness. The motives which induce to crime are as numerous as the minds which conceive them; the punishments which can be awarded are few. The French Jurists have attempted to classify the motives which lead to the commission of offences. Any such classification, however, must be more or less fanciful and impracticable. The latest which we have seen is that of M. Lepelletier.¹ “The criminal class,” says M. Lepelletier, “may be divided into eight types; to each of which belong distinctive moral characteristics and unerring physiognomical signs. To the first, the vagabond, belongs recklessness; he must therefore be taught prudence. To the second, the ruffian (*querelleur*)—passion; to him, therefore, moderation. To the third, the sharper (*escroc*), cunning; teach him in the prison school good faith. To the fourth, the fanatic, violence; replace this by mildness. To the fifth, the thief covetousness; teach him equity. To the sixth, the depraved, corruption; show him the beauty of purity. To the seventh, the poisoner, perfidy; give him, instead, benevolence. To the eighth, the murderer, cruelty; lead him back to humani-

'ty." When the human race shall speak one universal tongue, when differences of race and creed and colour and minds shall cease, this may be practicable. Meanwhile we must content ourselves in this less perfect state of things with less utopian schemes. The punishments which can be inflicted are few. The most obvious of all, and one universally adopted in the infancy of nations, is the rule of like for like. But as Blackstone observes* "there are very many crimes which will in no shape admit of these penalties, without manifest absurdity and wickedness. Theft cannot be punished by theft, defamation by defamation, forgery by forgery, adultery by adultery, and the like." Ordinary punishments may, we think, be all included in four general classes—1st, deprivation of life, 2d, infliction of bodily suffering, 3d, deprivation of property, and 4th, deprivation of liberty.

The first of these need not be discussed. Happily the cases are few which call for the enforcement of the extreme penalty of the Law. As regards the infliction of bodily suffering, we cannot return to the barbarous native practice of mutilations and torture, nor to the equally cruel and ignominious punishments of 'tusheer' and the pillory. A modified and unobjectionable form of inflicting pain, which is now extensively practised, is flogging. The Indian Law Commissioners did not include this in the list of punishments which they adopted. They considered it open to the same objections as ignominious punishments in general. "Of all punishments, this (ignominious punishment) is the most unequal. It may be more severe than any punishment in the code. It may be no punishment at all. If inflicted on a man who has quick sensibility it is generally more terrible than death itself. If inflicted on a hardened and impudent delinquent, who has often stood at the bar, and who has no character to lose, it is a punishment less serious than an hour of the treadmill. It derives all its terrors from the higher and better parts of the character of the sufferer; its severity is therefore in inverse proportion to the necessity for severity..... When inflicted on men of mature age, particularly if they be in decent stations of life, flogging is a punishment of which the severity consists to a great extent in the disgrace which it causes; and to that extent, the arguments which we have used against public exposure apply to flogging."† In the Punjab, we have seen that a large proportion of the crimes, especially of theft and burglary, are committed by a class who are outcasts from society, men of deadened, hardened feelings, to whom the social and moral objections urged by the Commissioners do not apply, and the infliction of physical pain seems in such

cases an unmixed gain. In the cases of these offenders, therefore, corporal punishment may be advantageously administered. It is moreover questionable whether flogging involves so much disgrace as is supposed. With oriental princes it has always been a favourite punishment, and the bastinado was probably less dreaded for its ignominy than its severity. Under the present law of appeal, however, summary flogging is open to considerable objection, as it admits of no remission. The limits which ought to be put to the power of appeal is another question, but under the present system it would be inexpedient to adopt flogging extensively.

Mulct is the most far-reaching of all punishments. Cupidity is, after all, the motive most fruitful in crime. Fine cuts directly at the root of it, and teaches in the plainest language that crime is a losing game. The Indian Law Commissioners introduced a most important principle, when they left fines to be inflicted lightly or heavily at the discretion of the Court, limited only by the powers of the different Courts to try the several gradations of crime. One of the chief advantages, resulting from a free use of fine, is not only its obvious connection with the offence as a punishment, but the means it affords of re-imbursing the sufferer for any appreciable or valuable loss he may have sustained. It seems to be one of the first and most equitable principles of law, that the criminal should make restitution to him who has suffered at his hands. Equity has led to its universal adoption: It was practised among the Jews, and Tacitus informs us that it was the law of the ancient Germans. Yet, strange to say, it is a principle only recently introduced into England. By the Common Law of England a person was not entitled to claim compensation for any property stolen from him. He was allowed only the right of reception, that is to seize possession of any of the goods he found in the hands of another, if he could do so without breach of the peace. Express statute now provides for the restitution of stolen property on conviction of the offender. We have already seen that fine was most extensively resorted to under the Sikh rule. In fact there was no crime which had not its money value. The practice of making restitution of stolen property, or its value, is in full force in the Punjab, and has been so ever since the passing of Act XVI. of 1850.

Fines, however, would be comparatively inoperative in the numerous cases of theft and burglary. Cattle-lifters, who are not seldom extensive graziers, and the wealthy goldsmiths, who receive and melt down the ornaments of precious metal; should be made to suffer in their property. But the actual thieves and burglars, who belong to the poorest and neediest classes, and are driven by crime to poverty, are not the proper subjects for fine.

There remains no course but to imprison them. In these cases, however, and all cases when offenders are incarcerated in consequence of fines not being realised, the prisoners should be made to pay for their crimes by their labour. It is unworthy of a great Government to profit by the proceeds of prison labour. True, the prison establishments are kept up at an immense cost, but they are paid from the general revenues of the country, and their maintenance is only one out of the many duties, which every Government has to perform in return for the taxes paid by its subjects. The labour of prisoners seems the most appropriate source, from which to reimburse those who have suffered by crime. To sell the house and little property of the criminal, is to turn him penniless on the world, and increase the motives to crime by poverty, the strongest of all temptations. But if each prisoner were made to pay for his offences by the sweat of his brow, his labour would have a more direct penal connection with his offence than it has now. Of the proceeds of labour part might be set aside to meet contingent Jail expenditure, part to form a small fund to put the prisoner above temptation from pressing want on leaving the Jail, and the rest to the reimbursement of those whose loss he has caused; and no criminal, whether the term of his actual sentence be long or short, should be released from confinement, until he has repaid every loss occasioned by his crime and all expenses attending his trial.

As the deprivation of liberty, it is universally admitted in this country to be the least effective punishment of all. Mere loss of liberty is not felt to be a severe visitation. At least one Jail in the Punjab is currently known in the district as Bibisht or Paradise. As a means of reforming criminals it might be made valuable, were steady, constant and profitable labour exacted from every prison inmate. Good habits, however, are acquired only after long and painful effort. For this reason more good can be effected with long-term than with short-term prisoners. Short-terms are unmitigated evils. They expose the convicts to all the corrupt and contaminating influences of Jail life, without teaching them habits of steady labour, which in their release might lead them to adopt an honest and remunerative calling. We should like to see short-terms of imprisonment less frequently inflicted, and recourse had to fines and flogging, in all cases where these punishments are practicable. Most of our prison inmates are of a promising and pliable age, the hopeful ardent period of life between sixteen and thirty. Much might be made of such materials were prison education more attended to. It will not be creditable to the Punjab Commission, if next year's Jail report does not show an immense improvement in the matter of prison education. It is also worth

consideration whether long term prisoners, who have been invariably well-conducted during the greater part of the period of their sentence, might not receive a probationary release. They might be put under surveillance of the police, and be made to understand that absence from their village or colony, without permission, for even a single day, would not only subject them to imprisonment for the remaining portion of their term, but to increased labour and the most rigid discipline.

We should like to see some measures taken, not only to detect and punish crime, but to improve the law-breaking population. We have pliable subjects, and may make of them what we please. Perhaps more could be done by the introduction of European arts than by any efforts of the legislature. An awakened spirit of enterprise is the most radical of all reformers. Railways and steam flotillas are the best humanisers. Could we only remove the aimlessness of native life, give the people an end to live for, teach an individual and a national destiny, what life would be imparted to the dry bones of India! We want a bridge across the gulph which divides oriental from western thought. A common religion is the bond which every Christian prays for. But the spread of Christianity has been and will be slow. Socially, at present, there can be no union, and little even of agreeable intercourse, between the natives and their rulers. But western arts form a common field, where the Englishman may teach and the native may learn without fear or prejudice. With the great veins of commerce opened out, the resources of the country known, and the people alive to their value, law will take a new form. Crime will then become a social sore, and the interest of society will be to cut off the festering member. Criminals will not, as now, be sheltered and protected for a bribe. Commerce is destructive to crime. The Punjaub is already rapidly opening up to commercial enterprise. Its productions, especially its flax, are exciting interest and speculation abroad, which are even now not without effect in stimulating production. In a few years the Punjaub may become in reality, what it is in fable, "the Garden of India."

ART. V.—1. *Selections from the Records of the Madras Government. Papers relating to the Revision of Assessment in South Arcot. MADRAS.*

2. *Reports on the Settlement of the Land Revenue of the Provinces under the Madras Presidency. MADRAS. 1858.*

Two Articles on the subject of the Madras Land Revenue have appeared in this *Review*, but at such long intervals that it is necessary, while laying a third before our readers, to recapitulate briefly the purport of those which have gone before. The object of the first Article,* was to shew that the lands of the Madras Presidency were much more highly assessed than those of the North West Provinces under the Village settlement, or than those of Bengal under the Zemindary settlement, and that not only was the assessment comparatively high but it was in itself excessive. We shewed that it was considered to be so by the very officers by whom it was first fixed (Col. Read and Sir J. Munro) at the beginning of the present century, and that the subsequent fall of prices had rendered it still more oppressive. We shewed that the heads of districts had from that time constantly urged its reduction, but had pleaded in vain; and that, in consequence of this assessment, the cultivation of the district which we selected as our example had actually retrograded during half a century of undisturbed peace. We shewed that the result was that the most fertile lands were lying waste, while those of inferior quality, which had been less heavily taxed, were cultivated, and that the general cultivation of the country was repressed. We stated that the effects really due to this excess of taxation had been the means of bringing into disrepute the principles upon which the settlement had been made. The evils of over-taxation had been laid at the door of the "Ryotwarry System." We endeavoured to free the system of Munro from the errors by which it had been overlaid, and to vindicate the pure principles of a Ryotwarry settlement.

A "Ryotwarry settlement," we showed, as understood by Munro, involves neither excessive interference on the part of the officers of Government, nor the taxation of improvement, nor annual scrutiny, as so often alleged. It simply proposes that the land be assessed once for all according to its quality, that the Government deal directly with the proprietor of every holding small or great, that no improvements be taxed, that the Government should not attempt to interfere to say what the size of the holdings shall be, but leave this to the ordinary operation of the customs and

* Vol. XVII. Page 282.

laws of the country ; and that the Government should not interpose between itself and the holders of the land any factitious aristocracy. It was urged that if the assessment was lightened, and the taxation of improvements, such as wells and plantations, abandoned—if, in fact Munro's principles were carried out in Munro's spirit—the agriculture of the Madras Presidency would rise from its depression, and an increasing revenue and a contented population would vindicate the soundness of the Ryotwarry principle rightly understood.

These arguments were not universally admitted, we therefore considered that if a district could be found in which the Ryotwarry system prevailed, but where the assessment was not excessive, where improvements were not taxed, and where annual scrutiny was not the rule, it would be valuable to see how the principle had worked there. The district of Canara appeared to offer the example we sought, and was a particularly valuable one, because it had been administered by Munro, who there found the principles in force which he had before advocated. The Ryotwar principle was indigenous in the country, and he left it undisturbed. In 1854* we published an Article descriptive of the district of Canara, and traced its Revenue history from the time of its cession in 1799 to the present day, and we showed that when the demand upon the land was moderate, the system of Munro was invariably successful ; that cultivation had extended ; that the Government revenue from the land had increased ; and that the revenue from extra sources indicative of the improving comforts of the people had doubled in 20 years. We concluded with the following remarks :—

“ We are not arguing that, where village communities exist in their integrity, and are in accordance with the feelings of the people, it would be advisable or just to break them down ; or that any one system would be applicable to the whole of India ; but we do argue that any attempt artificially to create an intermediate proprietary body between the cultivators of the soil and the Government, be it composed of village corporations, of Zemindars or of farmers of the revenue, is unjust towards the present owners of the soil, and that such institutions* must be injurious where they are not the spontaneous growth of the country, and supported by the affections of the people. Where none such are found, a ryotwarry settlement is, we believe, the only just and wise measure that can be adopted, and where a ryotwarry settlement has once been made, to attempt any other would, we are persuaded be a step backwards.

“ In the late discussions much has been written on the relative merits of the revenue systems of the several Presidencies, but we cannot but think that far too much stress has been laid on the system of

collection, while a far more important question has been left in the background. That important question is, not what system of collection is the better, but what amount of taxation can a country bear, and it is idle to compare two systems if one is applied to an oppressive the other to an easy taxation.

"If in one part of India we are expending millions to construct magnificent canals, and disperse the waters at one or two Rupees per acre, and in the other we demand 75 per cent. of the produce amounting to 30 Rs. an acre and upwards, what fair comparison can be made between the village tenures of the one, and the Ryotwarry tenures of the other. It matters little what course may be pursued for reducing the taxation of the Madras districts, whether it be done by a direct sacrifice of revenue (as in Cawnpore) or by taking an average of previous collections and making this a maximum of demand; or by adding so much waste land to present holdings as shall reduce the assessment to a moderate demand on the whole, (as has virtually been done in Canara,) or whether all these be combined; whatever may be the course pursued, the reductions which Sir J. Munro showed to be indispensable must be carried out before his system is condemned. But if when Ryotwarry assessment has been made as light as that of the North West or as that of the Zemindary Estates of Bengal, it fails to produce results as beneficial, then and then only will it have been weighed in the balance and found wanting."

A further period of five years has now elapsed, and during that period important changes have taken place in the revenue system of Madras, several steps have been made towards a return to the principles of Munro, and the Ryotwarry system has been freed from those excrescences which brought it into such ill repute. The taxation of wells has been at last abandoned, and a proprietor of land can improve it without fear of the revenue officer, provided he keep within the boundaries of his land. Government does not claim to share in the profits of cultivation, unless the water is supplied by the Government. The taxation of fruit trees has been also abandoned. Plantations belonging to the Government, and the produce of the public forests, are, of course, rented out as before; but trees planted on the farmer's own land, are the farmer's own property. These two concessions leave the proprietor in undisturbed possession of his land, so long as he pays a certain fixed land tax, and do away with a vast amount of vexatious and corrupt interference on the part of the subordinate native revenue officers. The question with which the fiscal officer has to deal, is simply whether the landholder retains the land he holds, whether he resigns it, or whether he takes more; and it is obvious, as observed in a previous Article, that as the land acquires value, any inquiry is unnecessary, for no one will give to the hands of Government what he can sell for a

But these concessions, great and valuable as they are, would have been of little avail, if the assessment on the land had continued at its former rate, but the conviction that the land assessment of Madras is far too high, especially on the better lands, has at last gained ground, and a general revision was commenced. It has been unfortunate that the question was complicated with that of a new survey of the Presidency, and has thus shared in the delay which attended an expensive, though a most necessary, measure. That a fresh and accurate survey was necessary, and would amply justify the cost, could not be doubted, but it was not sufficiently remembered that many years must elapse in arranging the preliminaries and carrying out the details of this great measure, that in the meanwhile the yearly revenue must be collected according to the old surveys, and that if they could be used in raising a heavy assessment, much more could they be used in levying a lighter one. The reduction of the assessment has therefore made but partial progress, but it has happily in some instances been carried sufficiently far to afford fair indications of its results, though in many districts the taxation remains at a rate now admitted to be excessive.

It is our purpose in the present Article to shew what has been the result of the reduction of the assessment, in those instances where it has been carried sufficiently far to afford fair indications of its effects on the cultivation of the country and the revenues of the Government. We consider the facts which we are now able to adduce afford triumphant proof that, in order to improve the finances of the Madras Presidency and to raise the condition of its people, no new system of management is required; that the ordinary principles of political economy are applicable to the land tax, as much as to other taxes; and that they complete the proof that the depression of the Madras Presidency has not been owing to the manner of collecting the land tax, but to the weight of the tax itself.

We are desirous of offering this proof at the present moment, because the writings of several influential authors are calculated to give an opposite impression. The most able Journal in India still attacks the principles of Munro in Madras, while it advocates the introduction into Bengal of a principle precisely the same, embodied in Mr. Grant's "Ryetty Bill." This bill is intended to aid the breaking-up of the large Zemindary estates of Bengal into small Ryetty tenures, but what is the difference between Ryetty in Bengal and Ryotwary in Madras, the Journal in question has not explained. Miss Martineau, in her late popular sketch of the history of British India, has been led to repeat the attacks formerly made on the system of Munro,

as if, instead of cherishing all proprietary rights which he found existent, Munro had broken them down. And in a late article in the *Quarterly Review*, the systems of collection were discussed with little or no reference to the comparative pressure of the taxation.

Were these the mere speculative opinions of authors little harm might result, but unfortunately the same views have been taken by the Government of India, and lead to practical results of serious importance. The North West Provinces under a village settlement have been prosperous—those of Madras under a Ryotwarry settlement have been depressed. This effect is attributed to the method, in which the dues of Government have been collected, or to the tenure by which the land is held, instead of to the fact that in the one case the demand of Government is very light, and in the other it is ruinously heavy; in the former the Government demands only one-tenth of the gross produce, in the latter it often demands 75 per cent. The interference has been that the Village system ought to be introduced into districts to the state of which it is entirely unsuited, and where the attempt is likely to be highly prejudicial.

A further effort therefore to distinguish between the pressure of taxation and the method of collection cannot be considered superfluous. In a passage written in 1856 the Government offer the following objections to introducing the Ryotwarry system into some of our new territories:—

“As regards the Ryotwarry system generally, his Lordship in Council observes, that the most obvious objection to it, is that the jumabundu, which involves the examination of each field, is necessarily an annual operation, and throws upon the officer in charge of the district an amount of labour which effectually bars the progress of any other business. Another principal objection is the excessive amount of inquisitorial interference which it involves on the part of the Government officers at every stage of agricultural operations, which evil is very much aggravated by the enormous amount of power lodged, and necessarily lodged, under this system, in the hands of subordinate and ill-paid revenue officers, and the very bad use made of it by them.

“With all these vices the Ryotwarry system seems to his Lordship in Council to possess no virtue, which does not either equally distinguish, or may be made to distinguish, a Village system of settlement, carefully executed in the first instance and faithfully administered afterwards. There is under it no encouragement to industry or enterprise, no room for independent action, and consequently little hope of either future improvement, whether by extension of cultivation or expenditure of capital, or of the increased prosperity of the people.”*

It is most remarkable that the Government of India should, after writing this passage, have insisted upon retaining in their new districts the very portion of the system supposed to be the Ryotwarry system, which brought it into such ill-

This passage embodies the objections usually urged against the Ryotwarry system, but it attributes to it some evils which form no part of the system, and others are refuted by the results which we are now able to lay before our readers.

Our chief illustration is taken from the district of South Arcot, and our information is derived from "Papers relating to the 'revision of assessment in South Arcot' printed by the Government of Madras among the "Selections from the Records of the 'Madras Government.'" The first of these papers is a report by the Collector demonstrative of the excessive amount of the assessment, and giving an able and concise history of the revenue administration of that district. This report brought to a close half a century of discussion, and we would strongly recommend the paper to our readers as one of painful interest. We shall make some considerable quotations from it, for it laid before the Government the facts that the land assessment was in itself excessive, that it was proved to be so by its effects on the district, and that it was so in comparison with the assessment of the districts of the Madras Presidency, with the rates prevailing in the North West Provinces, with those of Bombay, and with the tribute of the Zemindary estates of Bengal.

The district of South Arcot was one of the most highly assessed of the Madras Presidency; and its Revenue history details perhaps as large an amount of suffering as was ever endured by a people exempt from war and invasion. The report describes a district of great fertility, lying on the sea coast, and having the advantage of close proximity to the capital of the Presidency, with great resources of irrigation.

"On the assumption of the Carnatic in 1801, this province came under our Government in a lamentable state of disorder and decay, the principal cause of which was the excessive taxation to which it had been subjected during the last years of the Nawab's Government. The report of the Collector (Mr. Garrow), dated the 12th July 1803, shows that in the embarrassed state of the Nawab's finances the Dewan Raiyagee was summoned to the Durbar in 1774, and called upon to enter into an engagement to raise the revenue of the Soubah to 47,25,000 Rupees, though nothing equal to that sum had been before collected, Raiyagee added 3½ lakhs of Rupees for Sanderward, or office expences, and distributed the districts on rents to managers for 50,75,000 Rupees. Among the expedients resorted to for raising this enormous sum new

repute. The interference of the native officials, and the repression of improvement, arose chiefly from the taxation of improvements, especially wells and fruit-trees. While these taxes are retained there is an excuse for constant interference, there is no independent action, and little improvement. At the very time when in Madras these taxes have been abandoned and the Court of Directors in their appeal to the country cite this as one of their best deeds, the Supreme Government of India have resolved on retaining it.

imposts were added to the land revenue. The revenues were thus increased for a time, but as the land revenue had been before sufficiently onerous, the cultivators became impoverished, and the country was plunged into a state of ruin."

It would be a pleasant task if we had to trace the gradual improvement of the country under British rule. But before we come to improvement we have a dreary waste to pass through. The history is the same as in Salem. An endeavour was made on the part of the revenue officers to raise a revenue not far short of that of the native Government, and to raise this on the land then in cultivation. The assessment of the land was made in consequence at a rate far too high. The very authors of the assessment declared it to be too heavy, but, once imposed, the question of reduction rested, not with the local officers, but with the remote government, and the subject continued under discussion for upwards of fifty years. Thus the pressure of native taxation weighed with all the force of British authority, and not only this, but prices gradually fell and increased the pressure of the tax.

Under such circumstances it was impossible that even the blessings of peace, with the best system of land tenures, should counteract the effects of such taxation, and a decreasing income, contracted cultivation, and emigrating population, marked the effects, when the result was in 1853 finally laid before the Government, by the Collector, in the report above alluded to. It shews the final result to have been that, after 50 years of British rule, seventy-three per cent. of the assessed land lay waste; of an assessment of fifty-one lakhs of Rupees a little more than seventeen were realized; nearly thirty-four lakhs were upon lands which found no tenants. Of the waste land no less than 95,616 Cawnies, bearing an assessment of (₹88,500) 88,016 Rupees, were lands lying under tanks and channels, for which irrigation was available, had the taxation allowed of their cultivation. The finest lands of the district lay useless.

These facts are thus stated in the report. After showing that the original assessment had been formed on the principle of taking one-half of the gross produce, and that the gross produce upon which the assessment was founded was, by the admission of the revenue officers, "*rated higher than the lands yielded on the average*," it gives a table of the rates at which the land assessment stood at the date of the report, and then proceeds as follows:—

"The average result of the above rates per Cawney and per Acre is exhibited in the following table.

| | Assessed area. | Assessment. | Average per Cawney & acre. | | | Average per Cawney & acre on the Cultivation of 17 years from 1244 to 1260. | | | Average per Cawney and acre on the lands. | | |
|-----------|----------------|-------------|----------------------------|----|----|---|----|----|---|----|----|
| | | | A. | P. | | A. | P. | | A. | P. | |
| Dry | 10,64,881 | 32,42,638 | *2 | 5 | 7 | *2 | 11 | 1 | *3 | 4 | 10 |
| | | | 3 | 2 | 2½ | *3 | 10 | 7 | 4 | 6 | 5 |
| | | | *7 | 1 | 7 | *7 | 4 | 7 | *9 | 1 | 0 |
| Irrigated | 1,76,167 | 16,68,035 | 9 | 7 | 6 | 9 | 11 | 6½ | 12 | 1 | 4 |
| | | | *12 | 15 | 9 | *14 | 0 | 3 | *14 | 6 | 8 |
| Garden | 4,371 | 81,946 | 17 | 5 | 1½ | 18 | 11 | 3½ | 19 | 3 | 0 |
| Total | 12,45,429 | 50,92,619 | *3 | 0 | 8 | *3 | 14 | 3 | | | |
| | | | 4 | 0 | 11 | 5 | 3 | ½ | | | |

The figures marked (*) shew the rates in acres

"The rate per acre on the total cultivation is thus shewn to be Rupees 3-14-3, although 8-10ths of the cultivable area in these talooks consists of Poonjah or unirrigated lands, and it seems impossible that such a revenue could have been realized, had not the cultivators been able to take advantage of three circumstances.

"1st. Irrigated or wet land registered as single crop pays no extra cess when a second crop is raised upon it.

"2nd. The Ryots have always been allowed in this district to sink wells for the improvement of their lands without the Jeerwah or assessment being increased.

"3rd. The cultivation of indigo and the oil-seeds in demand for the European markets has enabled dry lands to be taken up, which would otherwise have been abandoned under so heavy an assessment.

"But notwithstanding the above aids to the agricultural class, the evil effects of over-assessment are clearly displayed in the manner in which cultivation has been arrested, and the condition of the people fails to exhibit that improved prosperity which might have been otherwise expected after half a century of peace under a mild Government. The statements laid before Mr. Commissioner Cotton, who was appointed in 1839 to investigate the state of the land revenue of this Presidency, show that the cultivation of the Hoolos talooks did not then exceed 43½ per cent. of the irrigated, and 22 per cent. of the unirrigated lands, and in forwarding these accounts the Collector observed "a large portion of that which is confessedly the best land in the district, both irrigated

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and unirrigated, (Punjab) and of which the greater part was formerly cultivated, is now abandoned." The cultivation returns of subsequent years exhibit a similar result, and it will be seen from the following table that the extent of cultivation still continues unsatisfactorily small in comparison with the available area.*

| Land. | Assessment. | Average Cultiva- tion from 1244 to 1260. | | Left waste. | Per of Minutes. | |
|--------------|----------------------|--|----------------------|--------------------|---|--|
| | Cawnies Rupees. | Cawnies. Rupees | Cawnies. Rupees. | Cawnies. Rupees. | | |
| Irrigated | 1,76,167 16,68,034 | 80,531 7,38,018 | 95,635 8,85,016 | 54 | The amounts to lakhs of and the average cult. it of during these years amounts to 26 319 Caw. seed at Rs. 94,944. | |
| Dry, Garden, | 10,64,880 2,42,637 | 2,48,887 9,11,563 | 8,15,993 24,31,074 | 77 | | |
| | 4,371 84,946 | 1,145 21,425 | 3,226 60,521 | 74 | | |
| Total | 2,45,419 50,92,619 | 3,80,563 17,16,006 | 9,14,854 33,76,611 | 73 | The Cawni ratio years 1 | |

"It thus appears that of the Nunjah land for which irrigation has been supplied, one-half bearing an assessment of nearly nine lakhs of Rupees remains uncultivated, while of the Poonjah lands three-fourths are kept waste. In the garden lands the same result is seen, though their limited extent leads to a comparatively small loss of revenue. It is surely an incontestable proof of our assessment, that the agriculture of a district enjoying great natural advantages should be in such a neglected state after 50 years of undisturbed quiet, during which its population has largely increased. Its climate and soil are generally favorable, its proximity to Madras and its sea ports affords outlets for its produce, and it possesses an industrious population who depend almost exclusively on agriculture for their support, and by whom all lands affording even a small remuneration for that industry are dearly prized. Yet its best lands now lie waste, while numbers of its inhabitants seek subsistence in foreign emigration. Some strong impediment must therefore exist to repress the agricultural industry and zeal of its population, and it appears to me unquestionable that this impediment is to be found in the overweight of the land assessment.

"The internal proofs which the assessment affords of its being too high have been already briefly adverted to by me; viz. 1st. The

See Report of Collector to Mr. Cotton, dated 30th Dec. 1839, and its accompanying statements Nos. 1 and 2.

† Lands not available for cultivation at the time of the survey.

‡ According to the last census the population amounted in July 1260 (A. D. 1850) to 1,006,005 or 219 to the square mile, of which 8-10th are engaged in agriculture. The earlier returns did not show half that number. See Collector's letter to Board, dated 20th November 1851.

principle of taking one-half of the gross produce upon which its assessment is based. 2ndly. The rates of Teerwah fixed for the different descriptions of land and the high average which they give. 3rdly. The great extent of good land which is now annually left uncultivated to the loss of Government and the people. I shall therefore proceed to offer a few remarks on the external proofs of the assessment being too high, which are to be found on comparing its rates with those which prevail in other districts, and shall commence my comparison with districts in its immediate vicinity."

We need not follow the report through these comparisons with the neighbouring Madras districts. It is more important to us to follow out the comparison with other Presidencies, whose condition is said to contrast favorably with the Ryotwarry districts of Madras.

"For my first comparison with the above rates," the Collector writes, "I take the district of Futteghur, the statistical account of which written by the Collector, Mr. Kinloch, has been officially furnished to my office. I find there the district described as more heavily assessed than any in those provinces, so much so indeed as to cause local discontent and lead to the appointment of a Commissioner by whom the rates were lowered. Yet the assessment so much exclaimed against amounted only to Rupees 2-12-9 per acre of the cultivated area, although the great staple of the district is rice.*

"In South Arcot the average of the cultivated area in the Hooloo talooks is Rupees 3, Annas 14, pice 3 per acre, though its irrigated lands comprize 1-5th only of the assessed area.

"My next example will be from an article on the settlement of the N. W. Provinces in the *Calcutta Review*, vol. 12, (page 457) which I trust I may quote without impropriety, as its accuracy is mentioned in Dr. Royle's official work on cotton culture, which has been supplied to my office. It is there stated that the rate at which the Government demand falls on the cultivated area in entire districts varies from Rupees 1-0-3 in Goruckpore to Rupees 2-13-8 in Cawnpore. The statistical report of the latter district, drawn up by Mr. Montgomery and published by authority, states that its assessment is fixed at from $\frac{1}{4}$ to $\frac{1}{3}$ of the gross produce, and contains the following table of comparative rates per acre.

"In the Delhi district the Government demand amounts to annas 15-1

| | Total area. | Assessed area waste included. | Cultivated area. |
|------------------|-------------|----------------------------------|------------------|
| Cawnpore, | 1 7 5 | 2 4 7 | 2 13 8. |
| N. W. Provinces, | 0 14 1 | 1 3 8 | 1 12 1 |

* Kinloch's Report on Futteghur, Paras. 160 and 171, pages 62 and 63.

pie on the entire area, and to Rupees 1-15-0 on the total cultivation, the rate for the best soil irrigated from canals being 6-6-4 per acre.* "Again in the Southern Provinces of the Bombay Presidency, where an elaborate survey has been some time in progress, Dr. Royle assumes (pages 373 and 374) the average assessment for land growing cotton at Rupees 1-0-0 per acre in the Dharwar district, and states that under the survey in Belgaum it would never exceed Rupees 1-12-0 for dry land.

"In South Arcot the Hoolos Poonjah rates commence at Rupees 10-9-4 per acre, and average Rupees 2-11-1 on the cultivated area."

"In the Bengal provinces under the permanent settlement, the result of a comparison would be infinitely more striking, and although I do not argue that their rates ought to be a guide in modifying the South Arcot assessment, it may be permitted to me to allude thus briefly to their far more favorable position when reporting upon the condition and wants of this district. I am the more readily induced to do so on this permission in order that I may offer a remark in defence of the Ryotwarry system, for as the merits of that system are frequently called in question, it appears of consequence to shew that it may not be the system itself, but a comparatively heavy assessment which has checked the prosperity of this, and the other Carnatic provinces. It is well known that these provinces came under our rule at a time when financial and political difficulties rendered it necessary to maintain with little abatement the former oppressive assessment. Hopes have since been expressed from time to time that a season of peace and tranquillity would enable Government to reduce the land tax to a more moderate standard, and now that the time appears to have happily arrived for this province, I cannot doubt that the advantages of the Ryotwarry system will be displayed in it. When this system is freed from unnecessary rules and details, and placed on the footing intended by its advocates, it realizes the great desire of the people, by enabling them to hold their lands direct from Government on a fixed moderate assessment. It also appears to me eminently adapted to draw forth the valuable qualities of individual independence and industry, and by encouraging the investment of capital in the land, to lead to the gradual formation of valuable estates, and the useful relationship of landlord, and tenant. Tanjore, the Poonjah villages of Coimbatore, Canara, and the Palnand districts in Guntoor, may surely be pointed to as illustrating the success of the system when it has been tried under circumstances at all encouraging."

More briefly, the average assessment in North Arcot was 7s. 9d. per acre, in the North West, with more irrigation, it averages 2s. 6d., in Bombay it hardly ever exceeds 2s. In the North

* See official Table at page 303 of Dr. Royle's Work on Cotton Cultivation.

+ In Bengal, Bihar, Orissa and Benares under the permanent settlement, the assessment amounts only 10-4 Annas or 6 pence per Beegah, according to Dr. Royle, though all the great staples, such as Indigo, opium, rice, &c. are there produced. Dr. Royle's Work page 560. In Colonel Read's Report on the Settlement of Salem, a contrast will be found between the Revenue drawn from the Carnatic

West Provinces the Government demand is ascertained to be one-tenth of the gross produce, in South Arcot it was more than one-half.

A supplemental letter was added by the Collector to this Report to prove that the cultivation of the district in its contracted state did not suffice to give food to the population, but we need not enter on this subject. We have afforded ample proof of the point which we urge that, while taxation was maintained at this height, it was unnecessary to seek a cause for the depression of the district in the system of revenue collections or of land tenures. Upon this report the Government in 1854, proceeded to action. They sanctioned a reduction of from 25 to 33 per cent. on the unirrigated land, and of 20 to 25 per cent. on the irrigated; and the assessment for second crops on all unirrigated land was abolished; and it was only levied on irrigated land, when the crop was actually raised by means of water supplied by Government.

We now come to a more cheerful view. The results of the measure rapidly disclosed themselves, and on the 17th December 1855 were thus stated in an official memorandum entitled "Notes on the results of the reduction of assessment up to the present times."

"In closing this collection of papers it may be well to mention a few facts to shew the result of the reduction made in the assessment so far as there has yet been time to develop them.

"The modification of the rates of assessment was made known in Fusly 1264 some months after the commencement of the Fusly, and when the principal season for cultivating the dry land was past. Nevertheless the cultivation of that year exhibits an increase of 38,395 Cawnies over the preceding Fusly.

"Of this increase 17,673 Cawnies consisted of irrigated land, and an additional revenue of Rupees 3,19,183 was thus gained to balance in part the Rupees 6,22,324 given up to the people in the modification of the rates.

"In Fusly 1265 the reduction of the assessment was generally known but cultivation was greatly checked by the scantiness of the early rains, and the district officers had not had leisure to settle all the contending applications for permission to take up waste lands. Notwithstanding these impediments however, the cultivation accounts closed at the end of Urpasy or to the 11th November 1855 shew a further increase of 84,007 Cawnies in the unirrigated lands, and of 9304 Cawnies in the irrigated.

"The cultivation of the last six years is shown in the following statement, and it will be observed that although the current Fusly 1265 is still incomplete, its cultivation up to the 11th November exceeds the highest year on record by 75,002 Cawnies or above 15 per cent.

| Fuslies. | Dry land. | Wet land. | Garden land. | Total. |
|-------------|-----------|-----------|--------------|----------|
| | Cawnies. | Cawnies. | Cawnies. | Cawnies. |
| 1260 | 3,53,720 | 1,18,434 | 1,337 | 4,73,491 |
| 1261 | 3,63,284 | 1,31,201 | 1,498 | 4,95,983 |
| 1262 | 3,53,848 | 1,24,725 | 1,466 | 4,80,039 |
| 1263 | 3,20,659 | 1,17,468 | 1,564 | 4,39,691 |
| 1264 | 3,41,381 | 1,34,651 | 2,054 | 4,78,087 |
| 1265 | 4,25,380 | 1,43,551 | 2,054 | 5,70,985 |

"The assessment on the lands cultivated in the current year is not yet known, but it is calculated that if the cultivation reaches 6,00,000 Cawnies, the revenue given up by the reduction of the rates, amounting to about seven lakhs, will be at once made good. This result is by no means improbable even in the current year, as two cultivating months remain, in which the extensive Indigo lands are sown, besides cotton and tobacco being cultivated.

"Of the gross increase of cultivation in the present Fusly, amounting on the 11th November to 93,311 Cawnies 89,111 Cawnies occurred in ten Hoolos talooks where the assessment has been formerly reduced. In the remaining three talooks temporary remissions are allowed at fixed rates, until the assessment is revised.

"Whether or not the full amount of the revenue given up in the reductions is recovered this year, there seems no rational room for doubt that in another year or two there will be an actual and permanent increase of revenue as a consequence of the reductions, and this, it must be remembered, in addition to the Road Fund of 30 or 40 thousand Rupees a year, for the improvement of district roads."

The Board's last report brings the result down to July 1857, at which time "the reduction of assessment on the land in occupation exceeded 10 lakhs of Rupees (£100,000) and yet from the spread of cultivation the settlement of the year amounted to 25,56,902 Rs. (£225,000) or Rs. 33,975 (say £3400) in excess of the highest standard ever before attained."

Such has been the result of this obvious, but long delayed, measure in the district of South Arcot, the only district in which it has been fully tried: whether even there the assessment is yet as low as sound financial policy requires we see much reason to doubt, and certainly it is higher than in the North West Provinces. The revised assessment of South Arcot is still Rs. 5-8-7 (0 11s. 0½d.) per

acre on irrigated land, while the average of the North-West Provinces is only Rs. 1-4-1, or 0 2s. 6d. per acre for all land dry and wet, and the proportion of irrigated to unirrigated land is greatly in favor of the North-West Provinces.

Even the spread of cultivation, which we have above described, only raises the proportion of cultivated dry land to 35 per cent. of the cultivable area; 65 per cent. of the land is still waste; and with the industrious habits of the cultivators of India nearly all that the Government abstains from taking as tribute becomes agricultural stock, applicable to the cultivation of this waste. But the example which has above been detailed is ample to refute the assertion that the Ryotwary system is repressive of industry, and proves that the "Magic of property" is as well prepared to work its wonders in India as in any part of the world, if even moderately free scope is given.

From this survey of the results of the measure in a single district we pass to a more general view of the results throughout the Presidency, and for this purpose we need only adopt a few paragraphs from the last report of the Madras Board of Revenue. The reductions in the remaining districts have been partial, but even there they have operated most beneficially. The following remarks of the Board hardly require enlargement:—

"The second subject relates to the effects which have followed the reductions made in the land assessment of some provinces* within the last four years: relief to the amount of 20 lakhs of Rupees has been thus afforded to the landholders, with the gratifying result of a revenue higher than has before been gained, and the rapidly advancing prosperity of the districts to which these liberal measures have been applied. Two particular instances may be noticed. In South Arcot the reductions of assessment on the lands in occupation exceed 10 lakhs of Rupees, and yet from an immediate spread of cultivation the settlement of the year under review amounts to 25,56,902 or Rupees 33,975 in excess of the highest standard ever before attained.

"In Gunttoor some sandy pieces of ground near the sea had been cultivated with the Chayroot dye and garden products, by the aid of rich manuring and hand irrigation from shallow wells scooped out by the Ryots. But these lands were taxed as if irrigated, and burdened with an assessment varying from Rupees 4 to Rupees 40 per acre, and their

| | |
|--------------|-----------------|
| Nellore | Rs 1,03,469 |
| North Arcot | " 3,14,108 |
| South Arcot | " 10 29,247 |
| Trichinopoly | " 2,38,437 |
| Coimbatore | " 2,06,626 |
| Salem | " 62,111 |
| Gunttoor | " 50,800 |
| | <hr/> 20,04,698 |

cultivation was in consequence very limited. Under the sanction of Government this exorbitant taxation has been changed to the rates which are charged on dry land varying from Rupees $1\frac{1}{4}$ to Rupees $2\frac{1}{2}$ per acre, and the cultivation immediately doubled* with a gain to the revenue of Rupees 7,351. Encouragement is thus given to continue a judicious relaxation of the assessment, where it is so high as to impede industry, and the happiest results may be expected from this course, and from the freedom from extra taxation now accorded to all improvements made by landowners at their own expense. Occasional fluctuations of Revenue from variation of season and drought must always be expected, but there can be no question of the general success which will follow the encouragement given to industry and the employment of capital, by revising the land assessment on liberal principles."

It is difficult to add force to these illustrations, but it may be well to consider the enormous amount of produce which has been added to the wealth of the country. The sum of £200,000 has been remitted and that sum is therefore in the possession of the people, but the Government revenue has actually increased, so that additional land paying a revenue of more than £200,000 has been cultivated. Supposing that on this new land Government take one-third of the gross produce as rent, two-thirds, or property worth £400,000 remains to the people. Thus by the most certain estimate £200,000 of the produce of the old land and £400,000 of the new, or £600,000, is added to the wealth of the people in each year. But the Government assessment is not really one-third of the gross produce, and it may be safely stated that a million sterling has been added to the yearly produce of the country, with an actual present gain to the Government, and with the assurance of progressive increase.

This progress may in some degree be estimated when it is stated that, in the last year alone, there was an increase in the cultivated area of 759,355 acres or $6\frac{1}{4}$ per cent. of which 581,005 were unirrigated and 179,137 acres were irrigated land. In the calculations here given a favorable year is not contrasted with an unfavorable one; the land revenue of the previous year was the highest known, and the past year exceeds it by 75 lakhs of Rupees. This is shown in the 47th paragraph of the proceedings of the Board of Revenue.

"In para. 29 of their general Report for 1265 the Board showed that the revenues of that Fusly contrasted favorably with the preceding 12 years. On the present occasion the Board desire to exhibit with more

* Extract Minutes Consultation 7th in Con. 26th Feby. 1857 No. 48 R. D.

| | | Acres. | |
|-------|------|--------|--------|
| Fusly | 1265 | 11,885 | 48,010 |
| Do. | 1266 | 25,628 | 55,461 |

distinctness the progress of the land revenue, and have prepared for this purpose the following table, from which other branches of revenue have been excluded, and in which the comparison is extended over a wider period. To make the comparison more fair, the revenue gained by the acquisition of Kurnool in 1254 has been struck out of the statement, and the annual Peshcush of Rupees 80,000 which it paid before that period has been alone retained. Besides Kurnool, which has been purposely omitted from the statement, no* great territorial acquisitions have occurred, and the additional revenue which has accrued from resumptious of Enams, and from Zemindaries coming under ryotwarry settlement, is in some degree counterbalanced, by lands having been granted to Pagodas on free tenure in the place of money allowances, and also to village servants for their official remuneration. At all events any balance of gain which remains under this head, must be insignificant, compared with the 20 lakhs of Rupees which have been given up during the last four years alone, in revising the land assessment. The progressive increase which now appears in the revenue must therefore be attributed to an improved administration, and to an extension of cultivation, called forth by a lightened assessment and by improvements in the irrigation and communications of the country.

| Period. | Average Annual Revenue. | Highest and Lowest Year. | | Remarks. |
|--------------------------------------|-------------------------|--------------------------|---|---|
| | | Fusly. | Rupees. | |
| <i>Decennial Leases.</i> | | | | |
| 1224 (1814) to 1230 (1820) ... | 3,41,47,067 | 1225 1230 | 3,46,71,412 3,29,07,605 | |
| <i>Ryotwarry.</i> | | | | |
| 10 years from Fusly 1231 to 1241* .. | 3,25,62,969 | 1234 1237 1249 | 3,51,99,907 3,11,19,726 3,49,28,098 | * In the early part of this period, reductions of Assessment to the amount of 15 lakhs of Rupees were made, viz. 11 lakhs in the Ceded Districts and the rest in North Arcot, Canara, Coimbatore, and Dindigul. |
| 10 Fuslies 1241 to 1251 | 3,21,47,596 | 1242 | 2,84,73,996 | |
| 10 „ 1251 to 1261 | 3,45,74,761 | 1257 1252 | 3,62,20,066 3,35,08,699 | |
| 1261 | 3,59,79,479 | | | |
| 1262 | 3,63,91,499 | | | The great drought. |
| 1263 | 3,36,10,040 | | | |
| 1264 | 3,50,61,654 | | | |
| 1265 | 3,66,09,388 | | | |
| 1266 | 3,78,47,002 | | | |

* The principal are lower Coorg .. Canara
 Checkady and Suncarapoorum South Arcot
 Tranquebar .. Tanjore
 Wodigerry .. Nellore

| | Rs. |
|------|--------|
| 1244 | 67,000 |
| 1239 | 83,591 |
| 1255 | 15,541 |
| 1250 | 64,744 |

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We think that the above facts conclusively prove that it has been erroneously supposed that the Ryotwarry system affords no room for independent action, for the extension of cultivation or the expenditure of capital. It is on the contrary the system which in every part of the world most encourages individual enterprise, and of which the above are results.

To the above argument we can hardly imagine that any objection can be offered. It may perhaps be observed by some, that other causes than those which we have dwelt upon have operated in favor of the industry of the Madras Presidency. Within a few years the transit duties have been abolished; the sea customs from port to port have been discontinued; roads have extended; some splendid works of irrigation have been completed; a large expenditure on the Railways has thrown capital into the country; and unusually high prices have ruled in the market. We admit all this, and while we still claim the larger portion of this prosperity as the effect of the reform of the land assessment, we say that in whatever proportion the improvement of the Madras Presidency may be allotted to the several causes now happily in operation, our argument is equally proved. Our argument is, that the Madras Presidency was not depressed by the Ryotwarry principle, but by over-taxation. We say that evils were attributed to the Ryotwarry system which were due to the over-assessment of the land, aggravated by the transit duties, the sea customs, and the want of roads; we urge that, by attributing the effect to a wrong cause; years were lost in idle discussion about village settlements and Zemindary systems, while cultivation contracted, men perished or emigrated by thousands, and untold wealth lay dormant in the soil.

The simple order to reduce the assessment has, without the expenditure of capital, created more material wealth than some of the largest public works have achieved; and there can be little danger in asserting that this measure, when carried out throughout the Madras Presidency, will, without cost, add more to the wealth of the country than the Ganges canal will effect at the outlay of two millions sterling. On the Ganges canal £1,560,000 have already been expended, and the value of the produce of the land is from £150,000 to £200,000. The total cost is estimated at two millions, the value of the produce of the land is expected to reach seven millions. The effect of the reduction of the land assessment of Madras has already been to add a million sterling to the produce of the country; and to multiply by seven, as its ultimate result, would be a most inadequate computation of its effects; when, in the district of South

Arcot alone, 65 per cent. of the land is ready for cultivation but still untenanted.

We must not for a moment be misunderstood as depreciating that magnificent work—the Ganges Canal, by this illustration. Let us by all means continue those noble works which spread fertility over kingdoms; but let us see that while, on the one hand, we dispense the bounties of nature by costly artificial means, we do not on the other impose unjust burdens on the spontaneous gifts of Heaven, till we actually nullify them. Let us not at Madras put a tax on the rain of Heaven till it becomes too expensive for the ryots' use, while in Bengal we spend two millions on artificial irrigation. In Madras much of the land dependent on the seasons, was far more highly assessed than the richest land under the Ganges canal.

In addition to the reason already assigned for laying these facts before our readers, we have another object in view. We believe that the history of the Madras land revenue illustrates very forcibly the working of an over-centralized Government. We have shown that the causes of the depression of the South Arcot district were fully appreciated by the officers of that district, and in a previous article, we showed that in the contiguous district of Salem the evils of over-taxation had, for upwards of 60 years, been represented, in forcible and earnest language, by every officer in succession who held charge of the district. But the evils remained unredressed, simply because the power of redress was in the hands, not of those who saw the evils, but of those who saw them not. The cause of this fatal delay was, *centralization*.

It is instructive to mark the stages by which discussion ripened into action on the subject of the Madras survey. It is sixty years since Read, Munro and Graham declared the assessment of their districts to be ruinously high. It is thirty-two years since Munro, as Governor, recorded this opinion of the Madras assessment generally; it is twelve years since the subject of a general re-survey and assessment was laid before the Government by the Board of Revenue; it is ten years since the Marquis of Tweeddale and his Council each wrote a minute upon it. It is three years since the subject was finally considered by the Government of Madras, and laid before the Supreme Government; it is one year since action commenced on the plan of a general survey.

In the last four years, as we have seen, the reduction of the assessment of South Arcot, and partial reductions elsewhere on the old surveys, have been made, and the result is before our

* The Ganges canal was commenced in 1848. The reduction of the Madras assessment began only 4 years back.

readers. Enough and just enough has been done, to shew what has been lost by leaving the rest undone. At least it affords a criterion by which the loss may be in some degree estimated. We shall not run the risk of appearing to exaggerate by attempting to represent it by figures, but the sum is a simple one; if between July 1854 and July 1857 some partial reductions added one million sterling, what would have been the effect, in fifty years, of a general reduction?

The remedy for this evil is, to view our districts in India as, what in fact they are, *Provinces*, equal in area, in population, and in revenue, to crown colonies; and to give to local authorities such powers as shall entail responsibility for their improvement. But the tendency of late years has been to reduce the local administration to a Cypher powerless for good, and gradually more and more unable to command the respect of the thousands over whom he nominally rules. The power of action has been gradually withdrawn from the district to the Presidency, from the Presidency to Calcutta. It is a serious question whether the tendency of late measures is not to withdraw it from Calcutta to England.

A slight sketch of some of the effects of this centralization in the remote provinces of our Empire, may not improperly close this article. The way in which the principle works is somewhat as follows. The enormous extent of our Indian Empire renders it impossible that one mind at the head of the Government should be able, at the same time to master the political questions daily arising, and to give attention to the subjects of local interest springing up in each of our numerous districts. The inevitable result is that the former force themselves upon the attention of the Government, the latter are postponed till a more convenient season. Then follow these results. The subject postponed is at last taken up with disfavor. There is an unpleasant feeling that it has been neglected. It is a troublesome business. It is not half intelligible. The Government never heard of the places alluded to before. It has been lying over for a year, and in the meanwhile the district has got on very well without it. The Government have too many plans of this kind before them. If the principle is admitted in this district it must be applied to others, and then the expense. It is true it will cost little in one district, but then what will it cost in other districts: the best way will be to send a circular to other districts asking how the plan will work there, and what the Commissioners think of it.

In the meanwhile the local administrator sees the resources of a splendid province lying waste, or he sees a population governed by rules and regulations entirely unfitted to their con-

dition and to the position of the country, he sees works of utility going to ruin for want of a few repairs, and those already out of repair left in their present condition. His morning ride takes him to a ruined tank, which once irrigated a hundred acres of land, but it was breached forty years ago, and the late Government never repaired it; the land produces only dry crops, and a revenue of £100 a year is lost. There are hundreds of such tanks in his districts. An outlay of £100 would restore a revenue of £100 annually; the villagers throng round his horse, they offer to bind themselves to take up the whole land in two years if the repairs are made; it would be the saving of their village, it would save their cattle, it would ensure their wells from drying up, they have now to go every hot season miles for water, it would pay the Government over and over again. But the local administrator is powerless. He has laid the subject before the Government more than a year ago, and has never even received an answer to his letter.

Of this the Government sees nothing, and knows nothing. The head of the Government is conscious that his whole energies from morning to night are applied to the high duties of his station. That he is unable to meet all the demands upon his time, that, in spite of all his exertions, arrears of works do accumulate, he feels and deplores, but the results of the system are necessarily kept out of sight. Things on the whole appear to be working satisfactorily. Much at any rate has been done, the Ganges canal has been advancing, what then if a tank in the Wayranpoor has been neglected? It is true that the Ganges canal is nothing to the cultivator of the Wayranpoor—they are 600 miles apart; but centralize the subject, and they both come under the head of irrigation, and irrigation has received the earnest attention of the Governor General in Council.

It is through the official channel alone that the wants and feelings of the provinces can, in India, reach the Government, and that channel is easily stopped. The Government must not be interrupted or annoyed. If a few unpleasant letters from the Secretary to Government fail to accomplish the task, it can easily be done by shewing the head of the district, that his suggesting a measure is rather a reason for its being refused than adopted, and a feeling of hopelessness, and a due amount of silence, will generally ensue.

Apply the above illustration (and it is a sketch from memory not from fancy) to other subjects, and especially to all measures of reform in the police and other departments, and the working of centralization will be understood. It is in consequence of this system that provinces equal to kingdoms, though nominally administered by experienced men, remain unimproved, their re-

sources undeveloped, their ills unreformed; and it is in consequence of this system that the people of India have ceased to feel the respect for their local rulers, which they invariably feel for those who come among them, with not only the will but the power, to promote their interests and to redress their wrongs.

It is necessary in order really to appreciate the extent of the evil, to endeavour to realize the extent of the provinces affected by them. Without an effort to do this, it is impossible to conceive the difficulty of communicating to a remote Central Government the local interest felt by a provincial administrator. It may in some degree aid to do so if we exhibit a contrast, if we suppose what would be the effect of establishing in the different provinces of India, local Governments empowered to act under the influence of local interests. Now of this we have an example in the Island of Ceylon. That province has its Governor, its Commander-in-Chief, its Advocate General, its Council and all the apparatus of local Government, and yet it is not equal in area, in population, or in revenue, to the charge of many a Commissioner in India.

Suppose now that the Island of Ceylon were absorbed in the Indian Government, its Governor superseded by a Judicial and Financial Commissioner, its Chief Justice sent back to England, its Council dissolved, its roads and bridges placed under the Secretary to Government in the department of public works, would the progress of that flourishing colony continue to be as rapid as heretofore? Would the interests of its merchants be as readily appreciated, and as quickly responded to, by a distant Central Government, as by its own local Government? On the other hand, suppose that the provinces of India were presided over by officers possessing the power of the Government of Ceylon, and were federated under the Governor General of India, could there possibly be the stagnation as to all works of improvement which has brought obloquy on the otherwise excellent Government of East India Company, and been one of the main causes of its overthrow. This comparison might be more fully carried out and extended. We have here selected Ceylon because it is nearer to the seat of the Central Government of India, than many of the provinces of India, and it is similar to those provinces in all respects; but the comparison may be extended to the Mauritius, and to other colonies of the Crown.

We would remark that it is unnecessary and by no means our intention, while endeavouring to picture some of the evils of centralization, to keep out of sight the good works of a vigorous Central Government. What may be done by a master mind may be seen in the summary of his administration drawn up by Lord Dalhousie. But a system must be judged, not only by what is

done, but by what is omitted. The acts of a Governor General commanding the resources of an Empire, can hardly fail to be enough for the fame of an individual, and in the hands of a man of talent, of boundless energy, of strong will, and of high ambition, will present the appearance of a brilliant administration; and yet the system may be rotten, and the very character above supposed may be calculated to increase its evils. There may be a desire in such a mind to see every thing with its own eyes, to grasp the little as well as the great, to be the directing head of all improvements, and there may be a tendency to distrust such plans as do not originate with itself. Under such a system and such control, the showy works carried on in the central or the newly conquered provinces may be dearly bought, at the expense of the stagnation and discouragement in older or remoter provinces, caused by a centralizing policy.

The Central Government and the local administrations have each their proper sphere. In addition to all the weight of its political and legislative duties, the electric telegraph, the railroads, the larger canals, and the trunk roads, with the military defences of the country, are enough to occupy the Central Government, without absorbing those smaller works which local knowledge can alone appreciate. In these a Central Government cannot interfere without harm. It is when one department encroaches upon the proper province of the other that evil ensues.

A man may be judged by what is done, but a system must be judged by what is left undone. A man may have done all that one man can do, and what only one man in ten thousand could have done. But a system, to be good, must provide that all shall be done that is required to be done. The construction of the electric telegraph, the planning of the railway system, the advancement of the Gauges canal, and many great works may raise the fame of Lord Dalhousie, but they offer no palliative to the errors of the system under which the neglect of the Madras Presidency was a possibility.

These remarks appear to us to be of importance at the present time, when the Government of India is in the course of reconstruction. During the late mutinies all the effects of centralization have come prominently into view. To make the evils of a rebellion in one part of the Empire felt throughout the whole, was one of its most prominent effects. Because the North West Provinces were in a flame, public works were suspended at Cape Comorin, and thousands of loyal and well disposed subjects were reduced to beggary. The blow struck at one limb affected the rest with paralysis, or would have done so, had not the genius of Lawrence and others shewn them the position which Governors of kingdoms should hold in the federated empire,

and had they not been endowed with the courage to assume that position. It is most instructive to see a Sir John Lawrence, the ruler of the kingdom of the Punjaub, in one month reporting to the Governor General on silk cultivation, and soliciting permission to expend some £30 a month to encourage this industry, and receiving a refusal to his request. This is centralization. Within a few short months centralization is dissolved, and the same officer, sitting on the throne of Runjeet Sing, on his own authority, raises a loan of millions, assembles an army of tens of thousands, and saves the Indian Empire. We argue that to those who are placed in charge of provinces, equal in area to the kingdoms of Europe, should be confided the power to improve their provinces; and that for the exercise of that power they should give a strict account; and that in the reorganization of the Empire, local Government should be carried out to the furthest point consistent with federal union.

But a few last words on the land assessment of Madras. We believe that a vast amount of evil has occurred from two causes. Firstly, from not distinguishing between the effects of over-taxation and those of revenue system; and secondly, from not defining the meaning of such terms as Ryotwarry tenure and Village system. We argue that that assessment is best for a country which is lightest; that that system of land tenure is best which is simplest. By Ryetwar tenure we understand the simplest of all: that under which each proprietor holds his property (be it small or great) independently, paying the Government due to the representative of Government. We believe that both the Zemindary estates of Bengal and the village lands of the North West will gradually break up into Ryetty holdings, and that the ablest officers of both these Presidencies consider the process a natural and a desirable one.

The principle which we advocate leaves the question of large or small farms untouched; it applies equally to both. But we desire to provide against one error into which the English reader is apt to fall, that, namely, of supposing that arguments in favour of large landed properties which have force in England have any force in India. In England, large estates generally imply a resident landlord, large farms, skilful farming, and valuable agricultural experiments. In India, the Zemindary estates and the corporate lands of the village communities are farmed on quite as small a scale as the lands of Madras, if not smaller. If this extreme sub-division of the soil is an evil, the evil is concealed, but in no way altered, by placing groups of small holdings under one man and calling him a proprietor. Such artificial proprietors are farmers of the revenue, not landlords in the English sense of the term.

If this and the preceding Articles on the Madras Land Revenue tend to correct any misapprehensions, to remove any difficulties, and to show that the Governments of the several Presidencies are really desirous of moving in the same direction; if they in any way aid towards the establishment in India of an independent body of Landholders, and if they thus vindicate the principles of that great Man whose name every Madras officer holds in reverence, they will have accomplished their object.

- ART. VI.—1. *Service and Adventure with the Khakkee Rissallah, or the Meerut Volunteer Horse, during the Mutinies of 1857-58.* By ROBERT HENRY WALLACE DUNLOP. London. 1858.
2. *The Chaplain's Narrative of the Siege of Delhi, from the Outbreak at Meerut to the Capture of Delhi.* By JOHN EDWARD WHARTON ROTTON, M. A., of Emmanuel College, Cambridge; one of the Chaplains of Meerut, and Chaplain to the Delhi Field Force. With a plan of the City. London: Smith Elder & Co. 1858.
3. *Personal Adventures during the Indian Rebellion in Rohilkund, Futtchgurh and Oude.* By WILLIAM EDWARDS, ESQ., B. C. S. London: Smith Elder & Co. 1858.
4. *Notes on the Revolt in the North-West Provinces of India.* By CHARLES RANKIN, Judge of the Sudder Court at Agra &c. London: Longman & Co. 1858.
5. *An Account of the Mutinies in Oudh.* By MARTIN RICHARD GUBBINS, of the Bengal Civil Service, Financial Commissioner for Oudh. London. Bentley. 1858.
6. *Eight Months' Campaign against the Eogel Sepoy Army, during the Mutiny of 1857.* By COLONEL GEORGE BOURCHILLER, C. B., Bengal Horse Artillery. London: Smith Elder & Co. 1858.
7. *Topics for Indian Statesmen.* By JOHN BRUCE NORION, M.A. Edited by G. R. NORION. London: Richardson Brothers. 1858.

IN the Critical Notices of Works in India published in our last number, we entered somewhat in detail into a consideration of the majority of the above books. Our purpose in the present article is a more general, and perhaps useful one—to look at them as combined and as a class, and while giving a brief description of the nature of each for the benefit of those who have not yet read them, chiefly to treat them as affording material for reflections on the events of the past two years, as well as certain literary results and effects.

Mr. Rotton's book is an unpretending "narrative" of one of the most important sieges recorded in modern history. When the temporary triumph of our insolent Janizaries had made of Delhi a focus for revolt, it at the same time suggested the only possible strategies for the then representatives of British power in Upper India—the Commander of the Forces, and Sir John Lawrence. There, on one side, up to about the end of July, gathered the ever increasing strength of the traitorous muti-

neer force; thence, strong in the possession of a "legitimate" monarch, an inexhaustible arsenal, and an army completely found with the arms and discipline of modern European warfare, our foe continued to improve the advantages of surprize, and to hurl defiance at the remnant of their late masters; while furnishing example and inducement to the rest of the Army to follow in their steps. Nor was the call unheeded. It is not likely to be soon forgotten by any in this country, how from Peshawur to Pacca the soldiery of the Bengal Army—with a few noble and memorable exceptions, *in omne miles nobilis ævum*—flocked to the stronghold of rebellion. On the other side, British power, awaking with a stagger, like a man struck in his sleep, slowly gathered its resources, and bore down on the common centre of gravity. Here then is the real nucleus of the war, on this must have been bent alike the aspirations of each contending party. Those of the rebel leaders who knew anything, knew that they must beat the English there and then, or never; the British, for their part, knew that to fail at Delhi might compromise every Christian life in the country, and render necessary the re-conquest of all India. And when Delhi fell, there could have been but few European residents of this Presidency, at any rate, who did not breathe more freely, as though a knife had been taken from off their throats. None of the subsequent operations, however interesting, can have been felt to the same degree, as *matters of life and death*; obviously, then, the subject of Mr. Rotton's narrative, and of the letters of the cool and patriotic Agent, Mr. Creathed, must take precedence of all others connected with the war.

Mr. Edwards is a Layman, a circumstance which renders acceptable the strain of piety which is woven through his book. That a man pressed and hunted, and owing his daily bread and his safety to the precarious fidelity of native agriculturists who were under no obligation to him, should find comfort in the perusal of the Psalms and other portions of Scripture, is not wonderful, and is moreover pleasing when related in a natural way. The events minutely detailed move the best emotions of the reader, who cannot fail to follow the pathetic fortunes of the fugitives with warm and anxious pity. Nor are the noble traits shown by their heathen hosts less worthy of remark. At great personal risk, with the temptation of large rewards, Hurdeo Buksh and his subordinates disregarded either threats or promises, which involved the breach of what must have been a tedious and onerous hospitality; Wuzeer Singh remained faithful, at all risks, to his master's fortunes; Rohna (an utter stranger) bore practical testimony to his gratitude for past good treatment from the British Commissariat officers in the Sutlej Campaign, by now carrying,

on two separate occasions, through all the watch and ward of an enemy's country, letters to the distant hill-station of Nynce Tal, and returning on both occasions with the replies to Hurdeo Buksh's village, and bringing gleams of comfort to the captive exiles; and lastly, Misser Bejjanath, the well known Banker of Barcilly, sent a servant—unsolicited—with a draft on Futtelguruh, and the servant actually went to Futtelguruh (then in possession of the enemy) cashed the draft, and returned to Mr. Edwards with the money. Throughout his wanderings Mr. E. gathered much, and might have gathered more, of native feeling. With the gross credulity of ignorance, those around him verily believed that the British power in India was at an end, and to him its last precarious representative, spoke their minds pretty freely. None of that burning hatred of race comes out which some would look for; frequent testimony is borne to the justice and kindness of English officers: it is the *native employés* who are everywhere denounced.

In Mr. Dunlop's book we have the reverse of most of this picture. Here the Collector, recovering from the short paralysis of power, is seen in the saddle, with sword and pistol, leading his gallant volunteers against the Goojur and other murderers of the Meerut district, who had taken their opportunity and resumed the Rob Roy régime of their forefathers. They had taken what they had power to take; they could keep but little. First the plundered property, and then the Government revenue, were extorted from these unappreciated statesmen, and lucky was he who kept his own skin. In one foray the Khudaks' levied upwards of three hundred with their leader Sah Mull, whose head did duty as a standard, upraised on the top of a lance! From the favorable manner in which Mr. Dunlop's book has been received by the Home Press, we presume it will reach a second edition, in which case we would recommend a more methodical arrangement of the illustrations, in accordance especially with the description on page 19 (if that be retained.) We should also like to see some details of the services of the other more distinguished members of the force; together with some general remarks on the means of defence as connected with Volunteer Corps, which should be formed, we think, at all large stations. Without endorsing the satirical comment of an opponent of Mr. Dunlop, that "his book is as full of Is as a peacock's tail," it may be proper to remark that a less exclusive confinement to a merely personal narrative would, in this case, render the volume more interesting and valuable, from the very circumstance of its differing, as it does, from the work of Mr. Edwards. The concluding remarks are very good, and we would give special notice to their really religious tone, so free from

that conventional solemnity which poor Tom Hood used to call "Magpiety."

"Let us act as those who know that we are not only servants of the British Government, but ministers of that God to whom justice and mercy, as well as vengeance, belong; that we shall all one day stand, our enemies and their victims, ourselves and the men now almost daily ordered for execution, before an unerring and all-wise judgment seat, where the plea of natural or national prejudice will not bar a judgment, the term of which extends to eternity."

Mr. Raikes is a member of the Civil Service like the authors of the two preceding books; unlike them he is already well-known both for his professional services, and for the very agreeable brochure in which he attempted, not without success, to popularize the mysterious subject of Indian landed tenures. The first division of his present book contains his personal experiences as a member of the Agra garrison, and must yield in interest to the three previously noticed. The Agra garrison was only once in any thing like actual contact with the enemy, before the fall of Delhi; and, though far from meriting the sweeping condemnations of Colonel Bouchier, attained a wider reputation for internal contention than for any sustained exposure in the field. More important, especially from such a source, are the didactic portions of the conclusion; and the admission, not yet perhaps too late, that the Tarquinian policy of beheading the tall poppies is fundamentally erroneous. These remarks should be carefully studied by all, either here or at home, who wish to "go in for the condition of India question."

No. 5 is by another civil officer, and has been already made very widely known. The third edition is got up in a very complete manner, and leaves nothing to be desired in a literary point of view. Mr. Gubbins has produced one of the most interesting of the books of the crisis. It is a pity that he should have so disfigured it by allowing his own evidently wounded feelings to appear, and by striving to dim the stainless lustre of the character and abilities of the great Sir Henry Lawrence.

We wish we could say the same for the volume by Colonel Bouchier; who, in spite of his rank, writes (if we may say so) like a "griff." With much of the light-heartedness of the proverbial Bengal Subaltern, his book is unfortunately blemished by a careless execution, and a prejudiced ignorance, which we would hope are not necessarily typical of that gallant class. The ablative absolute, moreover, is a favorite form of grammar, of which many whimsical specimens might be selected; the following may suffice; "little dreaming of any opposition to my

'onward progress, my bundle was transferred to the new vehicle." Here it was of course the Colonel who little dreamed, not the bundle.* "Bukht Khan was always very fond of English society. At 'one time, when studying Persian, he used to come twice a day 'to my house, etc."† Here there is not even an ablative; Bukht Khan is the nominative, if there be one in the sentence, and none but those who thoroughly understand Indian habits could possibly conjecture that it was the author who studied, and not the Soubadar. There is a parade of vernacular studies which do not appear to have led to much practical result, if one may judge from the way in which native words are spelt. Thus, at page 93, we learn that the "column marched to Allyghur, and the 'Collector bolted back at full speed to Bolundshuhr." The tenderest acquaintance with the vernacular would teach that the former word should be written Alighurh; the "Fort of Ali;" and the latter Boolundshuhr, "The high City." The spirit, too, of this sentence is bad; why apply a slang and contemptuous verb to the Collector's retreat? The Colonel does not accuse Sir C. Campbell of "bolting" from Lucknow in December 1857.

The Colonel's book, however, fills a vacant space in mutiny literature; giving a rapid but practical sketch of the whole campaign, beginning with the exploits of Nicholson's moveable column in the Punjaub, through nearly the whole siege of Delhi, and the subsequent operations of Brigadier Greathed's column; and ending with the final rescue of the Lucknow garrison, and the pacification of the Doab. As we gather from indications in the book that the author has received three steps in the service, and been made a Companion of the Bath, we rejoin in the conviction that his professional merits abundantly compensate for any shortcomings in the art of book-making.

The last work on our list is Mr. J. B. Norton's. To enter on a complete analysis of the 407 pages which compose this volume, would be to wander far from the purpose of this paper, which is rather literary than polemical. Mr. Norton's views are based on an assumption that the late revolt was national, not military. In reference to this point we would cite the 15th Chapter of Mr. Raikes' book, previously noticed, in which he adduces proof that it was "a revolt caused by a mutiny, not a mutiny growing out of a national discontent." And as Mr. Raikes was actively employed in the disturbed districts throughout the worst period of the disturbances, his testimony will probably outweigh that of Mr. Norton at Madras. The imputed grievances, which the latter writer is anxious to bring forward as grounds for the supposed national discontent, are chiefly attributed by him to the want of a regular system of law. And for

the numerous ills which afflict the ground-down and tortured people who have (or have not) risen against us, the true panacea, he conceives, would be the law of England administered by barristers, the class of which he is a distinguished ornament. The members of the Civil Service, as he holds in common with a class of thinkers once numerous in England, have long misgoverned the country. They now raise an interested cry that their misrule has not caused a rebellion. This, he asserts, is false; the partial misconduct of the peasantry and petty chiefs in portions of the Bengal Presidency being the result of an unskilled judiciary, and a policy of annexation—faults attributable to a greedy and ignorant Civil Service.

With regard to the first of these two alleged causes, it may be admitted that the Goojurs, and Mewathis, the town mobs and the camp followers who have committed so many frightful excesses, were dissatisfied with the laws and their administrators, though probably not on the score of their inefficiency.* As to the second, no proof is given that the Civil Service have been the combined advocates of annexation. Mr. G. Campbell was, no doubt; but so was the *Friend of India*. A still more violent assumption is that the clodpoles of Upper India, or even her petty squires, were capable of rising in defence of a principle, or in defence of the Nuwah (as they called him) of Oude.† The latter had been made a king by us, but was never acknowledged as such by the mass of the natives, and we might probably have unmade him without any opposition from them. Those who know them best agree in admitting that something that touched them nearly, either in the way of temptation or provocation, or both, was necessary. Of general principles they have not the vaguest heed, or perhaps knowledge. One of the great causes of disaffection is generally supposed to have been the approximation to the technicalities of English law, of which the subjects of the Bengal Codes had but too much experience, and their neighbours in Oude but too well grounded an apprehension.‡ And the uncovenanted judiciary, not educated on the principles of the Civil Service, but trained expressly to administer the cumbersome anglicized system of laws founded on English models by Lord Cornwallis, not directly interested in the prosperity of the districts, nor looked up to by the people as sources of supreme power, formed the agency under which the law was chiefly administered. These are very much the circumstances which

* In August 1857 Mr. Raikes asked a native visitor about a predatory tribe in the Mynpoory district. "They are the most respectable class of the community, left," he said, "but they are all starving, for, when robbers are supreme, mere thieves have no chance."

† See, especially, the letter to Mr. Colvin in the Appendix to Sleeman's Oude, book much cited by Mr. Norton.

would surround Barrister Judges, and these considerations may lead us to question the counter-cry of the Barristers "Great is 'Diana of the Ephesians;'" and to surmise that if codification be required, it is in the direction of simplicity and a conformity to Asiatic manners that its innovations should tend; and that the natives are no more groaning for Westminster law than for Canterbury religion or Paris cookery.*

But Mr. Norton is an earnest and able writer; and his chapter on the Press may be studied with advantage, as embracing a subject on which his previous experience well entitles him to a hearing. As, moreover, it bears directly on the matter we are now discussing—Anglo-Indian literature—we need offer the less apology for making it the subject of a few remarks.

There is a strong prejudice in many quarters against the Indian press. Considering the class of Englishmen who mainly compose society in this country, we may well be surprised at this. It would not be, at first sight, expected, that a numerous body of well-educated gentlemen and ladies, living in the midst of stirring scenes and duties, and removed far from the petty influences of "Bermondsey politics," should be satisfied (as it is said they are) with a domestic literature which, in point of taste, talent and morality, is alleged to be far below the level of Bermondsey. And the few books which we have been enabled to select out of a number of works called into existence by the growing interest in Indian affairs, sufficiently prove that in these three requisites Indian writers are not necessarily deficient.

Yet, on the other hand, a general prejudice of this sort is not likely to be entirely without foundation. In reply to the *à priori* arguments advanced above, it might be urged that the very merits of the Indian public, its freedom from vulgar elements,

Col. Edwards thinks, that in our criminal and civil administration we still adhere too strictly to the Hindoo and Mahomedan laws. To this opinion however, the Chief Commissioner cannot assent. He concurs very much in the views expressed, ~~by~~ contra by Mr. McLeod. "As to the criminal law Col. E. himself has, with research and acuity, shewn how persistently and consistently our legislators have, in the course of half a century, eliminated every objectionable element of Mahomedan jurisprudence. Our Indian criminal law may have many defects, and may most properly be replaced by the new penal code; but still its principles, as actually administered at the present day, are consistent with morality and civilization. * * * In purely civil affairs, not affecting imperial policy, and operative only as between man and man, conquerors have in all ages and countries permitted to the conquered the use of their local laws. In many important respects the native laws are as good as the codes of other nations. To abrogate them and to substitute a different code of our own would be impracticable; and if by any means it were practicable, a grievous oppression would be inflicted."—*Minute on Education, &c.*

was for some time Editor of the *Madras Athenæum*.

and its liberality and information, may be causes of indifference to the character of its indigenous press. Mr. Norton says,

"When the Indian press is called rebellious, scurrilous and the like, it seems to be quite forgotten that the accusation scandalizes the whole English population in India. Though the readers of the leading Indian journals are numerically small, compared with those of the European press, the circle is a refined and highly educated one; the editor may hope to 'fit audience find, though few'; and it stands to reason that, if he could stoop to the debasement of writing pruriently or maliciously, he would speedily lose the whole, or nearly the whole of his subscribers."

No charge of general pruriency is known to have been brought against Anglo-Indian journalism. But it is quite conceivable that it may be deficient in knowledge, ability and patriotism, without ceasing to exist, and yet without proving that those qualities are not possessed by its supporters. A journal which numbers its circulation by hundreds may not be able to afford a first-class editor; besides life in India is short, and art, the art of acquiring facts and expressing opinions suited to our very peculiar position here, must needs be long: a competent editor dies, and the paper has to be carried on by any cashiered Captain, or discharged merchant's clerk, whose fortune may throw him in the way of the managing proprietor. Still the intelligence department remains; the paper continues to be bought for the sake of its local news; and literary pabulum is obtained, by those who have leisure or inclination to seek it, from the highly-paid and organized press of the mother country.

We have spoken of the intelligence department, and here we have another weak point of Indian journalism. There is a very great thirst for news and for personal gossip, in a community such as ours, but it is not always fitly supplied. Discouraged by the orders of Government and the etiquette of the service, usually drawing competent salaries, and provided by their posts in the service with ample occupation for their working hours, the military and civil officers of standing very seldom contribute matter to the papers, either in the way of news or articles. The latter are left to the Editor who may be a Townsend or a Buist, but is just as likely to be a ———; and the intelligence, for which the paper is chiefly valued by the public, is furnished by any casual subaltern, discontented clerk, or "intelligent non-commissioned officer" who will take the trouble to write, from the combined motives of a desire to annoy or flatter a superior, to get the paper free, and to enjoy the luxury of seeing his lucubrations in print. We have no hesitation in saying that whatever vulgarity, personality, and still more common sty-

ty are to be found in Indian journals, are usually confined to the columns devoted to "correspondence," to "locals" or to "items of intelligence." PHILO VERITAS contributes a pack of lies about the treatment of the Subordinate Medical Department; JEMY SNEAK communicates scandal, about an officer of high rank, from the hills; or A VOICE FROM THE RANKS is raised in blatant mis-statement of an action which he witnessed from the honorable security of the rear guard. Much of this is doubtless sifted in the Editor's office; but, *que voulez vous?*—an Editor is but a man, and often a solitary one, given, it may chance, to convivial habits, or oppressed by weak health. "We have to apologize for 'short-comings in our issue of to-day; as we are far from 'well' is not a pleasant leading article, though it is one which sometimes has to be printed; the simpler plan is to make as much use as possible of the letter-bag, and hope for better times.

This is delicate ground; and after all is said, it forms no justification of Lord Canning's Press policy. That unhappy nobleman seems to have a special mission for the particular class of political blunders which are proverbially said to be worse than crimes; his motives were no doubt pure; the native press was beyond question an absurd institution at any time, and in 1857 was dangerous to the peace of the country. But no case of this kind can be satisfactorily made out against the English papers. We may admit the right of Government in the last extremity to suspend the liberty of the Press, as they certainly can that of the subject; but no one has ever proved that such a crisis threatened Lord Canning, dark as the times appeared. Indeed he was positively pool-pooling the outbreak at the very time when he employed this, confessedly, *ultima ratio* of despotic power. The fact probably is, that the same motive which led the Governor General and his Councillors to underrate the magnitude of the outbreak, induced them to gag the press. The feeling was "there is no national spirit in this outbreak: it is a purely military mutiny; all classes, it is true, native as well as Christian, are excited; but the best way to calm them is to treat them all alike, and compel them all to the same silence; the Christians are just as much excited as the natives, but no more." Fatal fatuity! To which we may yet owe an antagonism of race, which these worthy men but feeble politicians would have shuddered to contemplate, though they have, unwittingly, laid its foundations. To give Asiatics a free press is to trust children with fire-arms; they have never learned its use, and in their hands it injures themselves and their neighbours. The first murmur of impertinence on the part of Asiatic subjects is promptly checked by Asiatic Governors, who know well what it means; they err, it is true in being too arbitrary; they ignore public opinion, however

respectfully expressed; and with characteristic apathy consent to have their despotism tempered by assassination. It is not necessary for us to imitate them to this extent; it would be well if we studied the feelings of the people more than we do, in order that we might concede to them where those feelings are innocent, or be prepared to bear them down where they are noxious. But no murmuring should be allowed. Where the usually slavish Asiatic murmurs, he means mischief; and if he murmurs with impunity he will go farther. In this respect the English character differs widely. Constitutionally loyal, it is constitutionally ill-conditioned; but let superfluous steam off, and the Briton will do you yeoman's service. The native's ill-feeling, on the other hand, is increased by expression; he irritates himself by the sound of his own voice, at the same time that he despises you for submitting to it. And this constitutes, at once, a total difference between the position of the native press and ours.

In fact, whatever Ethnology may preach of kindred origin, no two races can be more dissimilar at present. The Hindoostanee is a vegetarian and a teetotaller. When did Englishmen respect such habits? Is it not his proudest boast that he is nourished on beef and beer? Can he fancy a Shakespear who drank unqualified Avon, or a Harry the Fifth who fed himself and his men on water-gruel? And has he not reason; what are the most distinguished names in the world's list of temperance men? Have such not been usually sour, flatulent, and ungenial; some of them mockers at God, or haters of men, or both at once? The earliest vegetarian on record is CAIN the son of Adam, who could not bear to shed the blood of a poor harmless lamb, in spite probably of an internal conviction that the essence of sacrifice was blood. And we know whose blood he was soon so swift to shed. The next abstainer of any note is perhaps Mahommed, the lustful and bloodthirsty impostor. And so on, with Rousseau, the paper philanthrope, with Robespierre who was opposed to capital punishment "on principle;" with the amiable atheist P. B. Shelley (too good to figure in such a list,) till perhaps the mingled vices of irreligion and immorality find their completest type in the execrated Nana of Bithoor; who perhaps never tasted meat or alcohol throughout the whole of his detestable career. The opinions of such a race, we repeat, are not to be ignored; but when they lean, as they very often do,

¹ In a recently published account of the Fiji Islands by two Wesleyan Missionaries, it is stated that the islanders are thorough cannibals, it adds that they are the people among whom the Gospel has made most satisfactory progress. Without connecting the two facts, they may be noted. The numerous instances of spiritual pride among Pharisees serve to shew that ascetic severities, and diurnal austerities, form one of Satan's most potent snare.

in the direction of infanticide, perjury and unnatural crime, those opinions should be eradicated by the strong hand.

And the promulgation of lies, again, cannot be too carefully checked among them. For falsehood their minds seem to have a natural affinity; truth they cannot understand; like the sailor's mother, they could not stomach the flying-fish, though they could well imagine that, on the shores of the Red Sea, it was still not unusual to pick up fragments of Pharaoh's chariot wheels. The writer of the present pages remembers to have held a conversation with some natives on the subject of the eclipse of September 1857. "Do you know how that is caused?" "We know" said one of them "what *you* say, about the shadow of the moon, and so forth: 'but we also know what it really is.' "What may that be?" "Why, of course, the sun is in debt to the sweepers, and unless 'we were to pay it for him, he would be in a bad way."

Thus it is that the proclamations of the rebel leaders, with the stories of impure cartridges, and bone-adulterated flour, found ready credence, when the obviously demonstrable assurances of the Government and its European subordinates were laughed to scorn. In the troubles of 1857-58; in the slaughter and distress that followed; in the strong resentment and long continued alienation of so many of their Christian neighbours, the misguided natives of India might trace, if they would, the Nemesis of Lies. Therefore, we say, control the Native Press. Let no papers be published in the vernacular languages but what emanate from authority, or are supervised by a competent censor; they may not, at first, believe all that comes from such a source, but it is quite in accordance with Asiatic habits that all literature should be directed by the State; it would probably be a practical advantage if a Minister of public Literature were appointed, with a competent staff of translators and booksellers, most of whom would naturally be natives of India. But with the English periodicals it is widely different. We deny the possibility, let alone the propriety, of any control being exercised over them, but that of the law. It may be desirable sometimes to prosecute a publisher for the sedition or libel; but you will never make Englishmen docile or polite by coercion.

The free Press, or system of periodical sheets containing news, correspondence, and semi-authoritative comments reflecting public opinion, is an institution to which Englishmen are accustomed, and one which they will never greatly abuse, although on the other hand they will not brook its destruction. The books by Indian writers that have been published in England, during the temporary interest there in Indian affairs, are respectable—some of them more than respectable—intellectually and morally. The resident English in India are well-informed.

liberal, and rather given to reading (if it be not of too heavy a nature.) . If, under these circumstances, Indian periodicals be sometimes stupid or vulgar, we must needs come to the conclusion that it does not represent the public fairly, and that the public, for her part, does not pay the writers highly. If a good periodical literature were not available from England, it would undoubtedly be the object of a strong demand in this country; and that demand would, we feel convinced, ensure the supply.

That the Indian Press does not reflect the views of the Indian Public, we think, must be, by this time, pretty clear. But the reason why the Indian Public does not get an organ of her own, or why she should be satisfied with home literature, which can never quite meet her wants—this is not so obvious. Making all allowance for the magnificence of the unknown, and the enchantments of distance, there must be still moments when an English resident in India would like to know what professional thinkers have to offer on Indian topics, either by way of fact or sentiment; and would enjoy either the soothing influence of acquiescence, or the fiercer joys of strife in perusing the expression of well-informed opinions. The *Friend of India* does in fact enjoy a tolerably healthy existence by this principle; all other Indian papers have an exotic air; and even the *Friend* does not seem quite at home. There is sometimes observable in his columns a kind of funeral procession of mute facts, a sort of despondent dancing in fetters, very different from the airy assurance of his London contemporaries. Pass from his pages to those of the *Saturday Review*, and you see, directly, that the latter is rather a master of the situation than not. His views may not be correct, but they are in harmony with those of an influential body of men; his arguments may be combated, but they will be heard. The fact seems to be that a powerful press supposes a powerful public, lacking which, the English press of India is but an oak in a flower-pot. Lord Canning has been systematically condemned by it, but he has not apparently suffered much. The Indian papers might be, and in this matter were, popular; but the Viceroy was powerful. Like the cynical lover in Dorset, he said "I have 'her body, you her mind; which is the better bargain?" Till they could rail the seal from off the bond under which His Excellency had the monopoly of misruling India, they might rail on. If he thought them likely to convey intelligence to the sepoys, or strengthen the Nana's determinations, he would put them under surveillance; otherwise they might scold as they liked.

Now we think the Indian press has the remedy for this, a good deal, in its own hands. The public here, being mainly composed of officials, cannot injure the Government, which is not

representative. But the Indian Government is controlled by one at home, which is representative; and the late India Bill, with the approaching telegraph system, will strengthen that control very much. If an Indian paper could once succeed in influencing the multitude who read the English papers, or even the few who write them, then, we may safely predict, they would have found their *Pou Stô*. As there was a period in the Old Lady's, at first, unsuccessful return from market, when the butcher began to kill the ox, the ox began to drink the water, and so forth; in like manner would soon come a time, when all the present difficulties that beset the Indian press would vanish. The rulers began to mind the public, the public began to read the papers, the papers began to pay the owners, the owners began to remunerate the writers, and the press got over its (bad) style.

Mr. T. C. Robertson, in a pamphlet published last year,* suggests another remedy, viz. that Government should not only impart more freely from its stores of information, giving bona fide, and without reserve, whatever matter might be published without detriment to the common weal; but likewise relax or remove entirely, the present rules and maxims, whereby qualified public servants are restrained from writing for the public prints. Let Mr. Sydney Herbert say what he will, we know that much of the 'ex cathedra' writing of the *Times* and other Imperial journals is by "the best authority (Members of Parliament, Heads of Department, and Cabinet Ministers);" and Mr. Norton, much as it sometimes suits him to abuse the Civil Service, has admitted in the chapter we have been noticing, that their intelligence and information would be useful in the Indian papers. At present, so it appears from his account, gentlemen of that service find in the *Calcutta Review* the chief outlet for their patriotism or their *esprit de corps*. This fact is new to us; but we bow to Mr. Norton's superior knowledge!

We think this is a matter which has hardly received the full treatment it requires: but we dread the reader's curse, and our limits are nearly reached. A brief resumé is all that we can now venture.

We have endeavoured to make the contrast between Indian writing for the home market, and Indian writing for the Indian market, a foundation for this argument. Namely that, if the interest in India felt by influential persons at home can be rendered less fitful and occasional—which we think should be the case now that the one country has come under the direct management of the other—and if the best qualified people, such as Mr. Raikes, or Mr. Norton, could be got to write for the Indian press

in their best manner, and upon materials of importance freely imparted from the best source; then would Indian journals cease to be remarkable chiefly for their rabid hostility to "the powers that be;" then, and then only, will Anglo-India have a press worthy of her many good gifts, her intelligence, her pure motives, her importance to the mother-country. From that mother we are separated by distance, but there need be no physical obstacle to her hearing our voice. At present, surrounded by Quacks who mislead her from fussiness or vice, she cannot give to her exiled children the support they would most prize—sympathy for their sorrows, pity and counsel for their errors, discriminating praise for their deeds of wisdom or valour.

No review of Anglo-Indian literature connected with the rebellion would be complete, unless it noticed the letters of Dr. Russell, the *Times'* special Commissioner. That these celebrated productions should have deeply moved the heart of Anglo-Indian society cannot, we think, be explained merely on the ground of their literary merit, great as it undoubtedly is; for Anglo-Indians do not, as a body, care about literature of which themselves, and their own immediate environments, are the subject. The letters would, under all circumstances, have a large number of readers in this country; but the strictures which they convey would have passed like the idle wind, had they been merely of that superficial class which forms the staple of ordinary works by tourists in India. The Works of Oliphant, Egerton, Bayard Taylor, and Minturn, hardly produced a ripple on the surface. But it is with Dr. Russell as with the author of *Oakfield*; the intuition of genius enables such men to hit real blots. To change the metaphor, the withers are wrung, and the galled jade winces. The storm of indignation which Dr. Russell's letters have aroused is in itself a proof of their containing truth. "Ce n'est que la vérité qui blesse." We have thought it more straightforward to commence with this plain statement, because we shall have occasion, henceforward, to dwell more upon the exaggerated extent to which the *Times'* correspondent has pushed his views; and to offer a pretty stout vindication of Anglo-Indian society against the conclusions he has founded on his partially correct premises.

Dr. Russell did good service, indeed, in the Crimea, where he had to point out the inefficiency of some of the Military Departments of the Home Government. But it is not too much to assume that he came to this country with very different views, and encountered a very different system. As the representative of the great organ of liberal English opinion, he must have come to India prepared to see a great deal of good in the proceedings of a Government, supported by the liberal party who had nominated

its Head, Lord Canning, and his Commander-in-Chief. And on his arrival he found an Army which was gradually but gallantly surmounting the most stupendous difficulties, and an administration occupied in preventing the extension of a frightful rebellion, by efforts to the success of which a good patriot would naturally be inclined to give aid rather than opposition. Yet he, at the same time, found the European community glowing with the shame and sorrow of recent disaster and present suspense; and armed, by the instincts of their position, with the bitterest hatred towards the classes to whom they owed so much suffering. Here was a puzzling position for any man entrusted with such powers, and filled with a sense of responsibility to the public of England. The solution arrived at was the easiest, though not the most complete, of which the problem was capable. Lord Canning might be a noble creature, interposing the calm magnanimity of a British nobleman between the blind exasperation of an excited community, and the innocent compatriots of the rebels. But to prove this it was necessary to run down the Anglo-Indian community, who obstinately refused to accept this position, and who held the home Government and that of Calcutta responsible for the evils to which they had been exposed. Nor were there wanting plausible grounds which might appear, on a superficial view, to justify a stranger in taking this view of us. Certain acts of wanton rudeness, a few, perhaps, of actual violence and oppression, and a general feeling of contempt for Asiatics, which shock the dilettante susceptibilities of men to whom the whole is a matter of personal indifference—all this strikes the eye of the new-comer as he wanders through British India. The mistake, we hold, consists in the connexion of this state of things, as cause and effect, with the supposed instability of our rule. In all parts of the world, good men must have some scorn of bad ones; in all Asiatic countries the "ryot" is in hereditary bondage; all honest men have a feeling of mixed hatred and contempt, even for their own faults of character, without which they would never mend them. It was while the intercourse between Englishmen and the natives of India was new, and while the former were in the comparative state of moral callousness shewn in all that we know of eighteenth-century manners, that the natives were most kindly treated, and the association between them and their alien conquerors most intimate. If Mr. Thomas Jones, C. S., and Ensign Northington of the Indian military forces, associated with the natives, it was but meeting the males in the cockpit, and the females in the idle hours of retirement, and no wonder; there was not such a very wide gulf between the two classes. It will, we think, be obvious to all but very prejudiced per-

sons, that this state of things was hardly worthy of a country holding such a mission as England's in the East; and it is the increasing earnestness of those whom she sends out to conduct her duties here which causes the present fermentation. Men as honest as Dr. Russell come out here in hundreds; they are mostly actuated by the purest philanthropy towards the people; on first landing they treat the native with the respect due to a man and a brother. But when they find that these men will neither own the brotherhood with their lips nor their lives; when they find their whole conduct influenced by principles diametrically opposed to those they themselves consider obligatory, their language always marked by the forecast and elaborate dissimulation of men whose ancestors have been oppressed from generation to generation, and the whole tenor of their intercourse with themselves marked by habitual cringing with rare interruptions of unprovoked hostility, the honest John Bull, conscious of entire innocence of all wish to enslave anybody, and fresh from the land where a man may speak the thing he will, naturally loses at times all patience with such subjects; and though nothing can excuse real cruelty or injustice, we do, in all sincerity, believe that a somewhat stern bearing is the necessary and proper result. What the *Saturday Review** can see with regard to the people of the Ionian Islands he should learn to see of those of Hindostan, and then he would not be joining the clamour against an unfortunate band of exiles, who are, as a body, striving to do their duty towards England's Indian wards, amidst privations, dangers, and sufferings, of which the continued misconstruction of their brethren at home is one of the heaviest elements.

* "If their nationality were as strong, as genuine, and as developed [as it is assumed to be] the task of England as their guardian might more legitimately come to an end. It is because their weaknesses, vanities, and clevernesses are all those of children, that we are entitled to keep them *in statu pupillari*, and to stand between them and the evils they would suffer if we evacuated the Islands to-morrow." For "the Islands" read "Hindostan," and the parallel is complete. *Saturday Review*, December 4, 1858, p. 550.

- ART. VII.—1. *Geological Papers on Western India, including Cutch, Sindh, &c., edited for the Government of Bombay.* By HENRY J. CARTER, Assistant Surgeon, Bombay, 1857.
2. *Description des Animaux fossiles du Groupe Nummulitique d'Inde, par M. LE VICOMTE D'ARCHIAC ET JULES HAIME.* Paris, 1853.
3. *Memoirs of the Geological Survey of India.* Parts I. and II. Calcutta. 1857-59.
4. *Transactions of the Geological Society of London.* 2nd Series, Vol. VII.
5. *Quarterly Journal of the Geological Society.* London. Various years.
6. *Journal of the Asiatic Society, Bengal.*
7. *Journal of Literature and Science.* Madras.
8. *Journal of the Bombay Branch of the Asiatic Society.*
9. *Reports, Catalogues, &c. of the Government Central Museum.* Madras.
10. *Reports of the Juries of the Madras Exhibition, 1857.*
11. *General Sketch of the Physical and Geological features of British India.* By G. B. GREENOUGH, F. R. S. London. 1855.
12. *Geological Map of Part of Bengal.* By Capt. W. S. SHERWILL. Calcutta.

RETURNING to Calcutta after a temporary absence, not very long since, we turned into one of those large bookselling establishments which grace the "city of palaces;" and desirous of becoming acquainted with the more recent additions to our literature, we requested a copy of the latest catalogues. In reply, we received a number of separate lists of books carefully arranged under distinct headings. At our leisure, we commenced to ransack their treasures, and found much of great value and interest. We were however more particularly anxious to see what stores of literary wealth we could command, if desirous of extending our means of reference, or of study, in our own immediate pursuits; or what we could procure suited to our purpose, if we wished, as was not unfrequently the case, to interest some young friend, or some acquaintance resident at a distance, in the local phenomena of his neighbourhood. We turned, therefore, to the catalogue of Geological works. In our over-estimate of the importance of a favorite pursuit, we con-

cluded that one at least of these catalogues we had received would be devoted to a carefully prepared list of valuable treatises illustrating the physical history of the earth.

But we sought for these, and found them not. Engineering, Medicine, Chemistry, Military Science, Poetry and the Drama, Cheap Literature, each had its own separate arrangement. We looked under "General Science" in vain—under "Miscellaneous Literature," but no works on Geology had there found their place. At last we had nearly come to the conclusion that we could not have received all the separate catalogues. One at least had been omitted. In this we expected to find grouped by themselves into an imposing class, all those valuable works on Mineralogy and Geology, all those noble treatises on the physical structure of this earth, which had been among the brightest and grandest contributions to human knowledge that the human intellect had ever produced. Alas, our hopes were vain! Looking again over our lists, we found Geology—the science which Herschel, himself an astronomer, was yet compelled in the just estimate of his well cultivated intellect to confess was second only to Astronomy in the grandeur and boundlessness of its studies—Geology had been quietly "*shoved into a corner*" as it were to hide its naughty head from the public gaze, in company with such other highly intellectual pursuits, as "*sporting horses, dogs*" * * Geology and Mineralogy."

Now, we certainly had known several who were good sportsmen, as well as good geologists. We could ourselves keenly enjoy the stirring excitement of the chase, cheered by the deep baying of the hound, or the steady and cool determination with which the quick-eyed sportsman watches the spring of the deadly tiger. We have enjoyed both, and we hope to enjoy both again. We know too, how one of our greatest living geologists, the author of "*Siluria*," was often wont to attribute, and justly we think, his "*keen eye for a country*" in which, perhaps, he excels all other field geologists, to the early and continual practice of fox-hunting. We had also, before now, been wildly steeple-chasing across country to the meet at "*Shotover Hill*" where the genial eloquence, and stirring spirits of Buckland could bring together his crowded class; and we could tell of some whose earliest initiation in the noble study of the earth dated from the excitement of these rides, when the moving passion was first perhaps to shew off "*a bit of blood*," or to display some "*swell togs*." But till now, we were certainly unaware of any intimate connexion existing between the literature of sporting and of Geology, of horses and dogs, and of Mineralogy. And we confess, we were amused at the classification which had been adopted.

But having enjoyed our smile, we began to think there must

be some good reason for all this; and consequently to speculate on the position of geological knowledge in this country; the progress which had been made in this pursuit; the facilities which existed for its cultivation; and the prospects of its advancing in general estimation. One thing was clear, the general public cared little for these things. No intellectual pursuit which claimed respect from the majority of thinkers; no object of study, which commanded the attention of even a fair proportion of those to whom the cultivation of their mental powers was an aim, could be, or would be, thus classed in lists intended to be of general service.

What then was the cause of this? Why, in a land, which certainly has never been characterized by intellectual lethargy, among a society, which experience had taught us was as fully alive if not more fully alive to, and as rapidly acquainted with, the ordinary triumphs of human intellect as any society in other lands, why should this higher study be neglected? why should that which is one of the most popular pursuits in Europe be, as it were, tabooed here, why should the most petty question of politics, or the most recent discovery of some charlatan be more thought of, and more enquired into, than the grandest and noblest discoveries of the changes affecting this globe on which we dwell, and exerting even a cosmical influence on the universe itself?

We by no means forget that much has been done in India. On the contrary, those who know best how much has been done, know best also how little of a connected story can be gathered from all this. There are two forces, by which geology has been enabled widely to extend the limits of her dominion. There are first the disinterested and ably executed labours of votaries, who, either singly or in associated societies, have devoted their unpaid and unsolicited energies to her service, and secondly the systematic and continuous labours of her regular army, who, either in connection with the geological surveys established by almost every civilized Government in the world, or with some of those great mining undertakings which in many countries are as truly a vocation of the governmental establishments as are the troops of the State, have sworn allegiance to her sway. To the former noble group of volunteers—the dashing *sabreurs* of our science,—probably some of the greatest victories are due; to the latter the more regular troops, must, however, be fairly awarded the higher merit of the steady reduction to “law and order” of the provinces thus acquired.

India can boast of many belonging to either class. Volunteers in the cause have not been wanting, who amidst the difficulties of a stranger-land, and the many and great discomforts of ar-

duous duties in other directions, have proved their faithful devotion, by bringing from the most distant and most inaccessible localities, their tribute-offerings to lay at the feet of science, and her more regular troops are now steadily following up these victories. With honorable pride we may quote a long list of able investigators of the geology of this country—and point to the names of Dangerfield, Coulthard, Malcolmson, Grant, Fulljames, Vicary, Colebrooke, Spry, Spilsbury, Newbolt, Williams, Carter, Fleming, Strachey, Thomson, Hooker, Hislop, and many others—and among those who have investigated the ancient history of the Organic kingdoms, to Royle, Falconer, Baker, Cautley and D'Archiac.

Why then, with such an array of contributors, has the science of Geology been so much neglected in this country? Why have there existed, hitherto, no sufficient representations of its mineral and fossil wealth! Why no local collections, no local collectors, with whom the accumulated knowledge of years of residence, and of detailed examination in each locality, might be found? Why has each investigator to commence anew, and to work out for himself all that has probably been done before, and to do this possibly under great disadvantages?

But on the other hand it may be asked what has been done? What progress has Geological knowledge made amongst us? How far have we advanced in acquaintance with the structure of the country in which we live? Ten years have now elapsed since the pages of the *Calcutta Review* laid before its readers, a brief summary of the state of knowledge of the Geology of India at that time. Probably the best answer to the questions we have just started will be, briefly to pass in review the more important contributions to our subject which the intervening years have produced, and to gather from such a review the great desiderata still remaining to be supplied, the great lacunæ still waiting to be filled in.

One of the volumes, the titles of which we have given at the head of this Article, enables us to do this with some facility, so far at least as Western India is concerned. The idea of bringing together into one volume, so as to afford easy reference to those desirous of consulting them, all the papers "that had been written on the subject, and therefore all that the Geologist of Western India can at present obtain, to lead to future discovery," was an excellent one, and Dr. Carter deserves much credit for suggesting it, and subsequently carrying it into execution. One of the most serious difficulties which the student of any science in India has to contend with, arises from the want of libraries of reference even in the Presidency towns—while the heavy cost, and the great delays and disappointments in pro-

curing books for themselves, are sufficient to deter many from entering as fully into such enquiries as they might otherwise be induced to do. The possession, therefore, in a portable volume, of all the papers previously published on any particular subject or locality, the more important of those papers printed, *in extenso*, while a full abstract is given of those of minor interest or value, will be in India, more than elsewhere, appreciated. The true value of such a publication is only known to those whose fate may place them in isolated positions throughout the country, and who may have had no opportunity previously of becoming acquainted with the labours of others. And yet it is from persons so placed that we must inevitably look for the most important aid. No mere casual visitor to any place can ever hope to bring together the same amount of detailed information, that can be acquired by those more continuously resident. And we speak only after a full estimate of the results of previous experience, when we say, that we are justified in expecting a very large and very important accession of information from many of these isolated observers, if only their attention be directed to the proper points, and their interest in the matter excited. We feel convinced that every cultivator of science in India will confirm our opinion, that in no country will he meet with more disinterested, and more zealous co-operation, with more eager assistance, or with more earnest appreciation, than in India. This immediate object requires only to be fairly stated, and he will find numbers of those, who perhaps at the same time openly avow their ignorance of the subject, ready to aid him heart and hand; while the few, who are fellow-workers with him in the same pursuit, will only be too much rejoiced to find even the trace of sympathy in their studies, to hesitate in laying open all their stores of acquired, or to be acquired, information. Yes! it is not from any want of a desire or willingness to aid, that the student of science in India will fail, but from an ignorance of the proper direction in which aid can be most effectively given. And everything which can even in a small degree tend to enlighten that ignorance, and so to render that aid judicious and well chosen, as well as blindly zealous, will be a benefit.

The paper of the most general interest included in this valuable volume is the "Summary of the Geology of India" by Dr. Carter himself, originally published in the Journal of the Bombay Asiatic Society, and reprinted now with foot-notes. This valuable summary includes all India South of the Ganges, Indus and Sutlej, omitting only that very interesting portion of North Western India, including the salt range, the Sivalik hill, &c. Mr. Carter very forcibly points out the difficulties of the task

he had undertaken, and alludes to that feeling of half despair which every Geologist must have felt, creeping over him, when, after reading "many hundreds of pages, the student finds himself barely on the threshold of his subject, and with but a faint sketch even of the most prominent Geological features of the country he at first thought so well known." He may fairly claim the high and very honourable credit of having most laboriously gone through, and most carefully compiled, the statements of all previous observers. He seems to have been fully aware of the difficulties attendant on this ungrateful task of generalizing from unconnected facts, and data loosely described; and if he has failed, his failure has arisen from too blind a confidence in the statements of others, and from his giving equal credit to all, however unequally qualified they may have been to offer an opinion, rather than from any want of labour on his part, or any absence of skill in combination or grouping.

We shall not attempt to follow the author through his long paper, but confine ourselves to a passing allusion to some of the more prominent points. What the author's "PRIMITIVE PLUTONIC ROCKS" (none of which he naively remarks have as yet been found, but to include which "when they shall have been determined," the group is provisionally introduced) may mean, we know not. Then we have, CAMBRIAN and SILURIAN ROCKS, the relations of which to these great fossiliferous groups in Europe, are determined solely on the fact of their containing slaty quartz, clay slates, quartzose gneiss, &c. Next we have a great group of Old Red Sandstone, this Old Red being by Dr. Carter subsequently transferred to his Oolitic series, as Tara Sandstone. This group is founded on a series of beds which Dr. McClelland described as being beneath the coal measures of the Southern part of the Rajmahal Hills, and as he unhesitatingly referred all the coal of India, now proved to be of various ages, to the carboniferous epoch of European Geologists, he naturally concluded that the sandstones which he fancied to be below this coal must represent the "Old Red" of English Geologists. Now the whole of this beautiful superstructure, and the supposed establishment of a correlation between these important European groups and the Indian rocks, a correlation which we need scarcely say would be of the very highest interest and value, if established, fall at once to the ground, from the simple facts that these beds, so referred to the "Old Red Sandstone," from their supposed position, are actually above the coal of the same district, and not below it, whatever the age of that coal may be.

But the most elaborate portion of the "summary" is Dr. Carter's account of the *Oolitic* formation. As the typical locality of this great series, which he divides into three sub-groups, he

has taken the country of Bundelcund at Rewah. Unfortunately, however, this very ground which Dr. Carter never had the opportunity of seeing, has been examined by the geological survey, who have clearly shewn that not only are none of the rocks which occur there referable to any of Dr. Carter's subdivisions, but that they are of a totally different age. As yet these rocks have never yielded fossils, and therefore it is impossible to fix exactly their true epoch. But it seems perfectly established that they are altogether different from the coal-bearing rocks of India. This is a most important fact, for it entirely upsets all the reasoning as to the so-called diamond sandstones, diamond limestone, &c. Mr. Oldham, in bringing forward these facts at the Asiatic Society in 1856, proposed for this great group, which was then for the first time separated as a whole from the coal-bearing sandstones of India, the name of the VINDHYAN group.

Passing on to the Cretaceous System, we are disposed to ask on what sufficient grounds Dr. Carter states that "fossils peculiar to the Lower Cretaceous and Upper Oolitic beds" occur in the rocks between Trichinopoly and Pondicherry. Of course such a phrase means, that fossils have been found there which are specifically identical with fossils which elsewhere are peculiar to these groups. Now if this be the meaning, and we presume it is, we are compelled to say that there is no ground whatever for the statement. Fossils which *may* be considered representatives of those, which in Europe are Upper Oolitic, do occur, but not one identical species. To quote Dr. McClelland's authority on a question of this kind adds nothing to the proof; he neither had given that attention to the subject, which was necessary to enable him to offer an opinion, nor had he the necessary books of reference, or collections for comparison. And, while Dr. Royle's opinion may have been excellent in questions connected with botany, it is certainly the first time we ever heard him given as an authority on fossil mollusca. In reality, the progress of discovery in that district tends to shew that there are beds belonging to a still more recent portion of the Cretaceous System than they were supposed to represent.* A most important discovery of fossils belonging to the same general epoch was made in 1857 by Captain Keatinge, near Bung, on the North bank of the Nerbudda, to the west of Mhow. The true relations, however, of the rocks containing them to the other rocks of the districts, are not yet known. The fact of Cretaceous rocks occurring there is one of great interest, and we cannot help anticipating that future research will prove that they occur in other and perhaps more localities. The occurrence in India of any representatives

* Jour As Soc Bengal 1858, p 112

whatever of the great Cretaceous System had long been denied, and the assertion has been continued, even after the beautiful collections made by Kaye and Cunliffe in Madras had been described and figured by Forbes and Egerton,* and even then it was supposed that rocks of this age occurred nowhere else in India, until the zeal of Captain Keatinge brought those at Baug to light. It is scarcely probable that similar rocks will not be found exposed somewhere within the space of some hundreds of miles which intervene between Pondicherry and the Nerbudda.

Dr. Carter's summary contains many valuable suggestions regarding the "Trappean Effusions," which he divides into two distinct series; he devotes a considerable space to his "Inter-trappean Lacustrine Formation," which he considers to represent the Miocene era of European geologists. A curious mistake is here made, which appears rather inexplicable. The author refers to this age, the "Rajmahal Coal Formation" of Dr. McClelland, which that author unhesitatingly considered to be of the Carboniferous epoch! This strange reference depends upon an erroneous statement made by Dr. McClelland in his report in 1848-49, that these beds "rested on beds of secondary trap." This error was, however, corrected so long since as 1854 by Mr. Oldham.† There is altogether, as regards this grouping, that strange confusion which must necessarily arise from badly described facts on the one hand, and an absence of any actual knowledge of the country, on the other.

We have alluded to these inconsistencies and errors, not from a wish to throw any discredit on Dr. Carter's summary, which we consider most valuable, but simply to shew how impossible was the task he undertook, without the advantages of personal examination. The few examples we have given will shew that he has, in one place, admitted as authoritative the distinctions established by some previous author, and in another case, altogether rejected the statements of the same person, and this without any assigned reason, other than that of making all harmonize with a system. In truth, under the circumstances of the case, the inevitable result of such an attempt with the resources at command, exceedingly limited in amount, and exceedingly various in authority and value, must have been a failure, if success be considered to consist in the attainment of anything like an accurate summary of facts. In such a summary, where the casual remark of a hurried traveller, who probably never devoted five minutes to the investigation of any rock, is vested with the same authority as the more detailed and careful examinations of those who certainly knew something of the questions they

* Trans. Geological Society, London, Vol. vii
 † Jour. As. Soc. Bengal, 1851 p. 263

studied, confusion is of course the necessary consequence. In grouping such previous observations, it by no means suffices that all the fragments of former sketches should be joined in one picture; the hand of a master acquainted with the ground, and thus enabled to interpret the meaning of those scratchy outlines, must be exerted with as great care in removing their faulty detail, as in supplying the few touches required to harmonize the whole.

The structure of Bombay itself has been described both by Dr. Carter and Dr. Buist, and much light has been thrown upon the peculiar and very interesting geological features of that island. The former author would seem to have an irresistible love for numbering and naming, and to be gifted by nature with a kind of *method*, which would render his services invaluable in charge of some extended collection. We will quote here a short sentence in illustration of this. He describes four distinct periods in the formation of Bombay: 1st, that of the Primary Volcanic or Trappean Effusions: 2nd, that of the deposit of the Fresh-water Strata: 3rdly, &c. &c. And he then proceeds to describe these four periods in order. "1st PERIOD. With the rocks 'of this period we have little or nothing to do, as they form no part, so far as my observations extend, of the Island of Bombay.'"

If so, it is difficult to see how they can properly be brought into a description of that island, excepting on the conviction of a systematic mind that something *must* have preceded the earliest known beds in that locality. It is an easy task to multiply periods and times on this elephant-tortoise plan! But it is rather inconsistent with the requirements of a descriptive paper, to pass from an account of what is seen, into speculations as to what is unseen.

Dr. Buist's paper is of a different character, and deals more with practical results. In the same volume are two excellent communications from Lieutenant Aytoun, and some valuable contributions by Dr. Carter to our knowledge of the geology of Arabia and Scinde, and of the Foraminifera which occur in such countless numbers in those districts.

Passing from Bombay towards Bengal, one of the most interesting papers which the last ten years have produced, is Captain R. Strachey's account of parts of the Himalaya and of Tibet.* To the North of the outer watershed of the Himalaya, and at an elevation of 14,000 to 16,000 feet above the sea, there occurs an immense plain composed of nearly horizontal beds of Tertiary age. These extend for some 120 miles in length, with a breadth varying from 15 to 60 miles, and are intersected by numerous ravines of stupendous depth and size, the result appa-

rently of the long continued erosion by the waters of the rivers which now flow in those ravines. These beds yielded to the hurried inspection of Captain Strachey, who could only bring away a few things, remains of Hippotherium, Horse, Rhinoceros, Elephant and of Ruminants; and the beds are supposed to be of about the same age as those so well known to geologists from the researches and collections of Falconer and Cautley.* (more recent?)

Captain Strachey's section represents, near the plains of Hindostan, a considerable thickness of "Secondary" rocks in junction with these Sewaliks from which, he states, 'he had procured "what he believed to be the impression of a Trilobite." We think we are correct in stating that this supposed Trilobite turned out, on closer examination, to be no fossil at all, but simply a concretion in the clayey bed. The fossil evidence from these rocks is, therefore, confined to a few imperfect vegetable remains. In these rocks are stated, to occur seams of lignite, and a frequent association of marl and gypsum, and sometimes of salt springs. From the mineral character Captain Strachey surmised that these beds were of Saliferous age, and were a continuation of the strata containing rock-salt in the Punjab. (These Punjab rocks have since been proved not to be of this supposed age.) With this view we cannot agree at all, and we would suggest as an important subject of enquiry for any geologist visiting these hills, whether these beds are "Secondary" at all, and whether they do not form a part of a great series of beds constituting a portion of the Tertiary rocks of that country, and above (not below) the important Nummulitic group, whether they are not in reality the representatives of that "Gypsiferous series" which Loftus has so admirably described in his valuable memoir on the geology of the Turko-Persian frontier.† which group appears, judging from published accounts, to be also represented in Western India, and which also appears far to the East in Burmah, as Mr. Oldham has recorded in his account of the geology of the Irrawaddee.‡ In the second edition of his report on the Khasi hills, the same author refers more forcibly to this series, and alludes to the probable occurrence of it in Eastern Bengal. He says.¶

"Again in connexion with the occurrence of an upper group resting

To the great regret of all geologists, and to the great discredit of the authors, this splendid work commenced by them many years since,—The *Fauna Antiqua Sinensis*—is still in precisely the same incomplete state, in which it was 10 years since,

† Quar. Jour. Geol Soc, London Vol xi., p 247.

‡ Yule's Mission to Ava, p 309.

¶ p 171.

upon the true Nummulitic rocks, in all known localities, extending from Arabia and Persia on the West, to Burmah on the East, this upper group being characterized generally by the presence of gypsum and of petroleum (the "Gypsaferous" series of Loftus) I would allude to the occurrence of petroleum springs in the vicinity of Cherra, and also further to the East, near Cachar, as an additional proof of the remarkable constancy in general character and detail, which this important group of rocks presents over a widely extended area."

There have been reports, both by Dr. Fleming and Mr. Theobald, on the geology of that most interesting portion of the Punjab, the Salt-range. But very much yet remains to be done there, before we can say that there is any connected account of its structure; and the palæontological evidence which its rocks seem to contain in abundance, must be worked out carefully, not in the strangely confused way in which it has hitherto been brought up. That there are, in that part of the country, representatives of almost the whole series of Indian rocks, appears certain from the few fossils which have been procured. And it will be a noble field for any one, who may have the opportunity and ability to work it out. From the recent alluvial beds, downwards through the Sewalik, with their rich fauna, to the Nummulitic group, with its beautifully varied series of marine molluscs, thence to the Jurassic, and Triassic, the Permian (undoubtedly proved to exist by some few fossils we have) Carboniferous, Devonian, and Silurian, this portion of our Indian Empire appears to possess the most complete and satisfactory series of successive formations, which have yet been made out. But it is still almost a "terra incognita."

In connection with one of the great formations we have just alluded to, we would notice the splendid and valuable contribution to the knowledge of the Nummulitic group in general, and that of India in particular, the title of which we have given among others at the head of this Article. M. M. D'Archiac and Haime have certainly, by their beautifully illustrated and most carefully edited work, done more to elucidate this series than any other labourers in the field. We would only say to others, go and do likewise for other formations equally important.

The first portion of this work is devoted to a masterly exposition of the structure, history and relations of those most interesting fossils, the Nummulites and other allied Rhizopoda; the second portion to the description, with beautifully executed lithographs, of all the fossil invertebrata, as yet known from the Indian rocks, representing this great sub-division of the Eocene

epoch. One word of caution here for future enquirers. It is ~~this~~; the materials from which the authors worked had been contributed by many hands, and had frequently been collected under circumstances of considerable difficulty and even danger (witness Vicary's noble efforts, when marching with troops in the face of a watchful and treacherous enemy) and it was therefore scarcely possible to avoid sometimes confusion and intermingling of specimens. In a few cases, we believe, this has occurred, and it will be found that some of the fossils described in this most valuable memoir in reality do not belong to the Nummulitic group, but to rocks of a more recent date. These cases are, however, but few, and by their very rarity shew the care with which such a work, prepared thousands of miles from the country whence the fossils were derived, and prepared from materials collected from various and distant localities, by many different observers, has been executed. To all students of Indian geology, it must ever remain a standard work of reference.

We have above limited the period over which we would extend our review to the last ten years. During this time the only truly geological additions to the knowledge of the structure of Bengal proper, are to be found in the memoirs of the Geological Survey of India, and in the detached papers by the officers of that establishment. To them we are indebted for the first lifting even of the corner of the thick veil, which cast so much doubt and difficulty over the question of the age of some of the most important groups of rocks in Eastern India. Previously to the commencement of their enquiries, all the coal beds of Bengal, and of India at large, were indiscriminately placed as truly Carboniferous, by the official report of the coal committee. The Survey has shewn them to be of very different ages, and it is even more than doubtful whether *any* are really Carboniferous; the great group of sandstone connected with these coal beds has been proved to belong to three or four different series; and many of the apparent anomalies thus at once take their appropriate places in order and succession. Some of the laws which have regulated the disturbances to which these rocks have been subjected; the lines of the great dislocations and the consequences of them, have also been shewn. It is not as yet possible to reduce all these to their proper system, and to fix the relative age of each, but much has been done. In Central India, also, the very locality, taken by previous writers as the typical representative of their so-called Oolitic formation, has been shewn to belong to a totally different age, and to have no affinity whatever with the rocks to which it was referred. And the Vindhyan group of the Geological Survey classification stands out boldly, as one of the great landmarks of Indian geology. There have

been fixed besides, the great groups or formations of the Talcheer, the Damuda and the Mahadeva, all great series of rocks representing great lapses of time, and separated by intervals marked by the unconformity of their superposition. To the detailed reports of the Survey we must refer for the proofs on which this classification is based.

In the various summaries of their proceedings submitted to Government from time to time by the brothers Schlagintweit, in connexion with the Magnetic Survey of India, some of their geological results are given. It would be scarcely fair to look to such brief abstracts for any important facts, and we must await the publication of their details. There is but little geological information given, and even that little has in many respects been proved quite untenable, by the more careful or subsequent examination of the officers of the Geological Survey. We shall not, therefore, delay here to notice these reports.

Turn we now to Madras. The principal publications bearing on the geology of the Madras Presidency, have issued from the Government Central Museum. Contributions of the kind published in the catalogues, &c. of that institution, cannot fairly be expected to be of that general character, or high stamp, which would mark them as valuable additions to a general knowledge of the structure of the country; they naturally, indeed almost inevitably, assume the form of merely descriptive catalogues. But even catalogues can be rendered valuable, when properly arranged, a credit which we regret to say we cannot assign to those of the Madras museum. Presuming that the objects catalogued have been themselves arranged in the order in which they are so numbered and named, we ask of what possible service can a collection of natural objects, of fossils for example, prove, when arranged without any regard to the affinities of the organisms it contains, but simply in the alphabetical order of the first letter of the names! How can the student learn anything, but confusion of ideas, from seeing thus mixed up plants and other terrestrial remains with marine shells and fishes, &c. Let any one read the following, taken from the catalogue headed *Palæontology*, and judge for himself what a clear notion he would obtain of the physical conditions under which the beds containing the several fossils were deposited. Astræa, Astarte, Ceriopora, Cidaris, Coral rag (is "Coral rag," a bivalve shell, a sea urchin, or a coral; we always thought it was a rock) Lithodomus, Nucleolites, Pecten Pentacimites (sic) Terebratula, Pecopecteris, ! ! again, Astræa, Bellerophon, Cyathophyllum, Goniatites, Phacops, Spirifer, Cytherea, Euomphalus, Freshwater limestone (to what group of fossils this is supposed to belong we are not in-

formed) *Fusus*, *Lymnea*, &c. !! Here we have deep-sea shells walking arm in arm with ferns and land plants, and salt water crabs and urchins paying a morning visit to, and sitting in the most friendly proximity with, land and freshwater shells. There are similar cases on almost every page. Not are the other catalogues in much better order. Take the minerals: a large series has evidently been purchased from the well known dealer at Bonn, and the ordinary labels always issued by Krantz with his minerals, and which are printed in French, German and English, have simply been reprinted. The catalogue of recent Mollusca is a mere string of names, with scarcely a single locality given, and with scarcely a single reference to the authors who have described them, and those for the most part erroneously printed.*

The instances we have given above have been taken without the slightest selection from page after page as we opened the catalogue. Was ever such utter confusion put forward as tending to be of service to the students? We perfectly agree with the editor in his preface to the same catalogue, that few even among long-established museums can shew a more *varied* collection, but we differ altogether from his notion that a *good* opportunity is now afforded "those desirous of studying the natural history, the fauna and flora of geology, the now extinct plants and animals which have in succession, through immense geological periods, been the occupants of the earth." We pity the student who has to work his way through such a mass of unarranged materials. We have no hesitation in saying that, if the museum at Madras be in reality arranged in the same way as its catalogues are (which we presume to be the case,) every well-wisher of sound knowledge, instead of finding a source of congratulation in the very large numbers of visitors, which are monthly paraded in the newspapers, must on the contrary regret that they should be led to the adoption of erroneous notions by the pretence of knowledge, and the assumption of authority, in which every thing is put forward.

We do not wish to be misunderstood in these remarks. The number and variety of the collections brought together, justify the fullest appreciation of the evidently untiring zeal and energy, which the officer in charge of those collections has brought to the duty. We are here only protesting against an exhibition of the false principle and system which pervades many things in this country, the idea, that those may be competent to direct an institution like this, who are themselves ignorant of the subjects intended to be illustrated; that the labours of others can

Among the Standard Works referred to as authorities on British shells, we find Maundcr's Treasury

be properly or effectively guided by those who know not the mode or the end of those labours. If a museum like this at Madras is to be a geological museum, a geologist is, *and can be*, the only person capable of arranging it or of even knowing what to arrange. If it be a natural history collection, one who is at least capable of distinguishing an eel from a serpent, and who can see that mere external resemblance in form is no sufficient ground of placing them together, must be in charge. It is something infinitely worse than a mere mistake, to suppose that the true purposes of a museum can be served by the accumulation of a mass of materials, and that the value of the collection can be, in the slightest degree, estimated by the number of its specimens. There may be millions of utterly useless rubbish, which would be much more profitably employed in metalling the roads, than in lumbering the glass-cases of what assumes to be a scientific collection. But who is to select? Who is to reject? If the controller have not the information requisite to enable him to do so with advantage, his subordinates are not likely to have. And so rubbish goes on rapidly accumulating. Such a collection, so put together, (we cannot say arranged,) placed in good rooms with good light, may be an inducement to wile away an idle hour, and may bring together crowds of children to romp among its cases,* but it can never teach, it can never instruct, it can never *educate* a thought.

We regret to be compelled by a sense of justice, to speak in terms of unmitigated censure of another publication relating to Madras. In the "Reports of the Juries of the Madras Exhibition of 1857," published by authority, and issuing with all the sanction which is derived from an association of those members of the community who are supposed to be acquainted with, or

The latest published report of the museum at Madras to which we have access, is dated July 1856. In this the number of visitors for the year ending 30th June 1856, is given as 368,873. And this number is contrasted with the numbers visiting the British Museum, Kew Gardens, &c. It is shown that the numbers in Madras exceed the numbers visiting either of those establishments, by about 20,000 annually. This result certainly struck us as remarkable and unexpected. We concluded that there must be some peculiarity in the case unexplained, or that the worthy people of Madras had exceedingly little to occupy their time, and therefore took liberal advantage of one of the few public places of resort, which were accessible to them. We were led to make enquiries on the subject; and we will here state the result of those enquiries, without vouching for the truth of the statement, which however we had from several persons. Our readers are aware that in the British Museum a record is kept of those only who actually enter the building, in the Kew Gardens of those only who enter the gardens. In Madras, however, we are informed, that all servants accompanying their masters to the entrance are carefully entered as well, and that thus each carriage which arrives adds at least two to the numbers of the visitors, besides the persons actually conveyed by it. Knowing the number of attendants who usually accompany Indian visitors, the explanation certainly carries with it a considerable degree of verisimilitude, and to a great extent explains the almost incredibly large numbers given.

interested in, the several classes into which the objects exhibited were sub-divided, and whose names are collectively given as conferring a sanction on the statements and decisions of the Juries, we find the first report relates to "mining, quarrying, metallurgical operations and mineral products." To this report are appended a series of circulars offering rewards for the discovery of "Blue Mountain Limestone," and of "illustrated circulars" on what the author is pleased to call "Practical Geology." There is not a single page of all these which does not contain some of the most glaring, and, if they were not at the same time mischievous, some of the most laughable, mistakes. To a geologist the mere mention of some of these will suffice, we find "shells from the Greensand or Muschelkalk formations, one of the lowest of the Cretaceous group;" rocks of blue Mountain Limestone containing numerous Silurian fossils! In the Silurian rocks we are told, that among other fossils occur some of the two principal groups of coral animals, as *Hemicosmites pyriformis*!! (shade of Von-Buch! where art thou?) "No indications of reptiles" it is said "have yet been met with in this group (Upper Silurian) and this agrees beautifully with the Mosaic account of the creation detailed from the 20th to 23rd verse of the 1st chapter of Genesis; it is probable that the fifth period or day corresponds" &c., &c. First the agreement is said to be *beautiful*, and then it comes out, that this beautiful agreement rests entirely on a probability, a probability which we need scarcely assure our readers, is entirely of the writer's own assumption. Again, "among the 'Cephalopoda' (the Old Red Sandstone series) we find *Clymenia*, also *Bellerophon* (!) and *Orthoceras*" nor is this a mistake, for we find the same strange assertion repeated on the next page in reference to the Mountain Limestone. "Of the class Cephalopoda, the *Orthoceratite* or siphuncled and chambered shell like a straight *Nautilus* is abundant. The genera *Goniates* and *Bellerophon* are also abundant, and are not found in strata of later date. *The shell of the latter is without chambers, and resembles the living Argonaut*; of the same class is the *Nautilus Koninckii*." Could we quote anything more laughably disgraceful. But all these fossils referred to are figured! we find too, "fragments of coral, apparently *Encrinites*," given not once, but several times. "*Cycas*, a 'tree fern' is a botanical discovery which would be interesting, if only *proven*. But we could go on quoting such statements almost without end. Then we have the same beds occurring in the same districts, referred indifferently, in different portions of the report, to the New Red Sandstone, to the Permian and to the Old Red. "An 'extensive bed of the Muschelkalk, with some of the fossils above described, occurs at Ootatoor," is stated on one page, while these same fossils are, on an adjoining page, stated to be *Cretaceous*!

The whole series concludes with the statement, "The above series which describe and illustrate the fossils and strata nearest to the coal, have been prepared with the view of communicating information (?) on this subject."

We regret to see the names of some worthy cultivators of science associated with these reports. We do not think it possible that the zealous companion of Kaye who first brought to light the beautiful fossils found near Ootatoor and Pondicherry, can have seen, much less have approved of such reports. Had he seen them, such errors could not have escaped his correction. So long as these circulars were confined to a local journal, they of course came before the public with only that amount of authority attached to them, which the name of the editor conveyed. But when issued by authority, as the reports of juries officially selected to pass a solemn verdict on collections officially called together by the head of the Government, they assume a different character altogether. We protest against such a misapplication of public money in thus spreading error; we cannot allow ourselves, even by implication, to be made the laughing-stock of the geological world, which we should be if such absurdities were permitted to pass unrebuked.

But sad as is the ignorance thus displayed, our object in thus strongly calling attention to it, is far different from any desire merely to find fault. We have done so with a special end and purpose, which will appear more fully in the succeeding pages. And that purpose is simply this. We desire to draw from all these facts their moral, and that moral we believe to be most clearly, that such mistakes not only will occur, such errors not only will be made, but that they must be expected to occur and must be looked for as inevitable, until there be some sound means of general education in these applied sciences. If those means really existed, it would be simply impossible to find among half a dozen educated gentlemen, one who could openly and publicly set forth such extravagancies as "information."

We turn, with pleasure, to some of the most valuable contributions to the geology of India, which have appeared during the last ten years, namely the labours of the Rev. Messrs. Hilslop and Hunter in the district of Nagpore. These gentlemen busily and devotedly engaged in conducting a large and important missionary establishment, to which were attached valuable schools requiring constant superintendence and care, have yet found time, snatched at intervals from their more pressing duties, to bring together and combine into most excellent descriptive papers, the detached observations which they were enabled to

* Quar Jour Geol Soc, London, Vol VI, p 345 and 555, 1855.
 Jour As Soc., Bengal, Vol XXV, p 347, 1856

make during their annual tours, visiting their out-stations, and marching from village to village proclaiming to the benighted inhabitants the glorious tidings of that Gospel whose ministers they were. Few districts have received more able illustration, even from professional geologists, than has the vicinity of Nagpore from these zealous missionaries. Mr. Hislop has continued his labours, and since he has been deprived of the aid of his fellow-worker, has found time to discuss in some valuable papers the more theoretical questions of the geological age of the rocks he had before described. We would point to these most important communications, as almost the only instances within the period to which we have limited ourselves, of local contributions from permanent residents to the geology of their immediate neighbourhood. Mr. Hislop's own experience, so clearly told in his brief history of the successive stages in his geological discoveries, shews how slowly, how gradually, evidence after evidence accumulated; how one season yielded one fact, the succeeding season another, until after years of untiring and unbroken application, he was at last able to think that sufficient material had been brought together to justify his reasoning on the whole, and attempting to bring all into one co-ordination or system. We know of no brighter instance of the value of early training and habits of observation, than we find in these papers. Premising that the general result of these enquiries was submitted to the Geological Society of London in 1854, we would quote here the words of the author. They seem to us to tell simply and forcibly the progress of his discoveries, and to show how steadily each successive day was forced to throw an additional ray of light on the whole, while at the same time they prove by actual example the truth of a remark we made above, that the enquirer in India will never have to complain of want of aid, or sympathy, zealously and frankly afforded to him. Mr. Hislop says;—

“ In 1845 I procured a few fossils of the same kind from the Kampti sandstone, and two years subsequently my esteemed colleague, the Rev. Lt. Hanter, and myself, fell in with them in the contemporaneous strata of Chándá eighty miles south of Nagpore. None of these specimens, however, were preserved, nor was anything further done by us or by others to understand the palæontology of this part of India, until June 1851, when, walking with my fellow-labourer in the neighbourhood of our residence, two or three *Physas*, in a deposit enclosed in a trap hill about a mile west of Sitabaldi, and two miles in the same direction from Nagpore, forced themselves on my notice. They were at once referred to the fossils which Voysey and Malcolmson had discovered in a similar situation, and the deposit in which they occur was identified with the fresh-water formation that they had traced in several parts of

the Nizam's territory, and at Chikni and Hinganghat in this state. In a few days after, at the same spot, I found the first bone, and Mr. Hunter the first tooth; and, after a week or two, on Takli plain, about $2\frac{1}{2}$ miles N. W. of Nagpore, I met with the first Fruit and Entomostracan. About the same time, from observing the traces of ancient vegetation on the soft clayey sandstone, used in the absence of chalk for whitening the writing boards in our mission schools, I was led to make inquiries about the locality from which it was brought, which ended in the discovery of *Glossopteris* and *Phyllothea*, and some seeds or seed-vessels at Bokhara, six miles north of Nagpore. Ere long we were joined by our friend Captain Wapshare, Judge Advocate of the Nagpore Subsidiary Force, who added many valuable vegetable remains to our collection; and it is to his able and generous efforts that we owe, among other rare acquisitions, the first palm and the first mulberry-like fruits. From the red shale of Korhadi, seven miles north of Nagpore, I procured tracks of Annelids, and more recently, in combination with them, the foot-marks of some reptile: and towards the end of the year, in company with Lieutenant Sankey of the Madras Engineers, I visited Silwada, twelve miles north of Nagpore, where the sandstone yielded a profusion of rich and most beautiful specimens of *Glossopteris*, and whence have since been obtained a variety of Exogenous stems, several species of *Phyllothea*, and an interesting specimen, contributed by Mr. Hunter, of an allied genus, which by Lindley and Hutton is reckoned an *Equisetum*, and by Bunbury probably an *Asterophyllites*.* A mission tour, undertaken about the same time, conducted my colleague and myself past the fresh-water formation at Rahadsingha, forty miles W. N. W. of Nagpore, in which was detected an abundance of fish-scales dispersed through the stone. On our return, Mr. Hunter, among the seeds and fruits of Takli, discovered the first specimen and the greater part of our fossil Coleoptera; while we received an accession to our collection of shells from Dr. J. Miller, then of the 10th Regiment Madras N. L., who, while on an excursion with Dr. Fitzgerald, had found the fresh-water formation at Butará near Machhagodi, eighty miles north of Nagpore, and also from Mr. Sankey, who had fallen in with it at Pilkapahád, twenty-five miles to the north-west. The latter-named officer, after discovering in the Kanupti quarries the first Vertebraria, a fine species of *Phyllothea*, a long endogenous leaf, and an abundant kind of seed, all of which he liberally handed over to us, proceeded, along with Dr. Jerdon, the Indian ornithologist, in the direction of Butará and the Mahadewa Hills,† whence they returned with several new fossils belonging to our Eastern Coal-formation, and excellent specimens of the shells previously collected by Dr. Miller, agreeing in general with those of this neighbourhood. In a portion of the Butará rock which they kindly gave me, I was struck with the appearance of a diminutive creature, which proved to be a second genus of the Entomostraca. Ere the first anniversary of the discovery of our earliest Physa had come round, several other localities had been ascertained for both the fresh-water and sandstone fossils, and

* Quar. Jour. Geol. Soc., Vol. vii., p. 189.

† Quarterly Journal Geological Society, Vol. x., p. 55.

observations had been made on the remains of quadrupeds and shells imbedded in comparatively recent deposits. Since that, on our annual mission tours, we have become acquainted with a productive site for sandstone organisms at Mángali, sixty miles south of Nagpore, which has afforded a few unusual vegetable remains, a species of *Estheria*, scales and jaws of fish, and the entire head of a Saurian; we have passed through districts abounding in laterite and iron ore, and have increased our knowledge of the geological structure of the country generally."

If we could only induce others to follow in the footsteps of these worthy men, to lose no opportunity of bringing together the facts they met with, and collecting the evidences of those facts, how much might we not hope to gain, how rapidly might we not expect to extend the domain of our knowledge.

It detracts not in the slightest degree from the value of Mr. Hislop's papers, that the progress of investigation has shewn him to be in error on several points. Their value consists, not so much in their perfection or completeness, as in the fidelity with which only that which was seen is stated, and the perfect distinctness with which those facts, and the reasoning founded on them, are stamped. The facts remain, the reasonings are of course subject to much modification in consequence of extended knowledge. Nor could it be with any justice anticipated, that detached observations made during successive seasons and at long intervals, made too under the pressure of more important and trying duties, often unavoidably left unfinished and incomplete in the hurry of other engagements, it could not, we say, be fairly anticipated that such observations would yield the same fruit as a systematic examination of the country.* From this it has resulted that several of Mr. Hislop's conclusions must be modified, and in fact have been modified, by the more detailed examinations of the Geological Survey. Mr. Hislop refers the whole of the sandstone beds to one series, and considers them the same as the sandstones previously divided by Dr. Carter in his Summary into three sub-groups. On the contrary the Geological Survey has shewn that they are entirely distinct from these latter, and that they are themselves referrible to two or three groups separated by marked unconformity. It is probable that Mr. Hislop's "Upper Sandstone Series" of his later papers, or the "Iron Sandstone" of his earlier, belongs to the same group as the Mahadeva of the Geological Survey. His second group or his "Laminated Series" is probably the representative of the Damoodah beds of the same authors. But if this be so, there is at Nagpore a total absence of a most important group of beds, which form the upper

* We would here mention that to other missionaries also we are indebted for geological contributions. See the papers by the Rev. Mr. Muzzy and Dr. Caldwell in the reports of Govt. Central Museum, Madras, 1855.

portion of the aqueous rocks in the Rajmahal district, and which are also seen in the Nerbudda valley. The whole of them are unhesitatingly called Jurassic by Mr. Hislop. Whether this will finally prove to be their true epoch remains to be proved. But to those interested in the matter, we would suggest the propriety of considering the remarks of the geological surveyors in their report on the analogous field of Taleheer, where the probability of some at least of the rocks described by Mr. Hislop proving to be of Permian age, is forcibly pointed out.*

We find too that Mr. Hislop himself has considerably altered his opinion, for in a brief summary of some of his results, which he communicated to the Asiatic Society in Bombay before sailing for Europe, he speaks of these rocks, as Triassic or Liassic, basing his opinion on the occurrence of fossil fish-teeth (*Ceratodus*) which he had at first supposed to be from Tertiary beds. We do not in reality think it a matter of any importance, at the present, whether these beds be Jurassic, or Triassic or even Palaeozoic. What every sound geologist desires to learn is the succession of these beds, the mode in which one depends on the other, how one has grown from the other, in fact their history. We accept, therefore, the system adopted by the Geological Survey in India, of giving local names to these groups, leaving the determination of their true affinities, as compared with established European groups, for future research. Such names are useful for the time, in giving definite and brief terms by which to distinguish certain groups of beds, and so avoiding much circumlocution, and when the epoch to which such belong is clearly established, they are readily merged into the larger and more general classification, based on wider investigations.

As regards geological maps, India has received during the last ten years a few valuable contributions. Foremost among these, from the fact of its referring to the empire at large, more than from the accuracy or detail of its information, we would place, the general sketch of the Physical and Geological features of British India, by Mr. Greenough, published in 1855.

To all who had the pleasure of being acquainted with that able and original thinker, to whom the progress of sound views in Geological Science is much indebted, and who never hesitated boldly to withstand any tendency on the part of its cultivators to run riot with any favorite dogma or any "authorized" opinion, his excessive partiality for maps of all kinds was well-known. Maps were employed by him as a means of exhibiting facts and phenomena which it would scarcely occur to others thus to record; the desire of locating, geographically, any statement, whether relating to his own favorite study, geology,

* *Memoirs of Geological Survey of India, Part I. pp. 61, 82.*

or to any other, seems to have been with him irresistible. To some feeling of this kind, we presume, is to be attributed the commencement of this map of India. Every fact bearing on the geological structure of the country, which was met with in the course of his extensive reading, was jotted down on a map of the country at the point where it was stated to occur. The localities of minerals, of fossils, of coal, &c., thus became noted; the outline of different rocks, as described or mapped by others, was transferred to his own map; and as materials thus accumulated, the various detached and isolated points of the boundaries were united and rendered in some degree consistent. This, in reality, was the only original work contributed by Mr. Greenough to the map; and in many cases this has been very ingeniously and cleverly done. That the map however was suffered to remain as it was compiled, with, in several places, contradictory and incredible statements on the face of it, was, unfortunately, caused by its compiler having been lost to the world of science before its publication was completed, and is a proof that the mode of compilation was that we have suggested.

Defective, however, as this map is, and as indeed every such first attempt must be, and having no pretence whatever to be more than a pictorial representation of the extent of area over which certain rocks are known to extend (no attempt even being made to point out the true geological relations of those rocks) it has unquestionably been of very essential service. There are many persons who will examine and comprehend such an appeal to the eye, who would never trouble themselves to study a detailed description. And the very desire to correct the errors of such a map will in itself lead to enquiry.

In 1852 a valuable resumé of all the information acquired by Captain W. S. Sherwill during his long continued connection with the Revenue Survey, was embodied in a geological map of Bengal. We would express our great regret that the topography of this map, as well as that of Mr. Greenough, should be so very defective. Old maps, the best probably that existed at the time these compilations were commenced, have been used, and the more recent additions to, or corrections of previous knowledge, have not been embodied. But until the general survey of the country is more advanced such errors are unavoidable. In Captain Sherwill's map, we have one of those most useful compilations, in which facts are rapidly, and in several points, most successfully grouped into a few general classes, by which the eye quickly seizes on the prominent conditions, while the minutiae of detail are neglected. And this is no mean advantage. The map must however be looked upon rather as eco-

nomical than geological. Indeed in its geology there are some strange inconsistencies. Would our readers fancy an historian in tracing out the succession of events in the English annals, placing the reign of our Sixth Edward prior to that of John, and proving, to his own satisfaction at least, that the unwilling concession of their chartered rights to the bold and manly barons of the latter, was only the result of the yielding piety of the former. Let our readers, we say, fancy this, and they will have an instance somewhat analogous to the reading which the author of this map gives of some passages in the history of the geological changes which have occurred within the area of his map. We find "Old Red Sandstone," resting on, and therefore subsequent to, "Mountain Limestone," both being undisturbed! In his sections also, we see some 300 feet in thickness of Asbestos forming a regular bed resting upon Hornblende, and covered by Laterite, a statement which, to use a common phrase "requires confirmation."

To the same author we owe two very interesting papers, in which some geological facts of value are given. In one he describes the district of the Rajmahal Hills;* in the other the trip to the snowy regions north of Darjeeling.† Conveyed in a charming style, the reader is led along with all the enjoyment, but not the fatigue of his traveller. The geological facts are, however, only incidentally noticed, and these contributions can scarcely be considered as fairly belonging to our subject. The previous separate maps of Capt. Sherwill, of the districts of Behar, Shahabad, and part of Bhaugulpore, were all embodied in his subsequent general map, and need not therefore be referred to. The geological maps of the districts reported on by the Geological Survey, are also published separately, we believe. But with these, the list of maps must conclude. We do not, of course, enumerate here the maps which, in many cases, have illustrated Memoirs, but which must be taken as part of those Memoirs.

To the Mineralogy of India, the contributions have been but few. In the pages of the Asiatic Society's Journal, Calcutta, will be found descriptions and analyses of several, to which Mr. Piddington has given names, as new to science, which names have to a small extent gained currency. But the value of these results may well be doubted. And until the analysis of the Nepaulite, Newboldtite, &c., of this author be repeated with more care and skill, we may be excused from admitting them to the rank of mineral species. One curious substance, analysed by Mr. Piddington, is worthy of notice. To it he has given the name of a zealous promoter of natural science to whom we are

* *As. Socy. Bengal*, Vol. xx., p. 544, 1857.

† *Ibid.* ditto, Vol. xxi. p. 540, 1853.

indebted for an interesting account of the district in which he was for some time located,* and from which the supposed mineral was obtained along with many other loose specimens. It will be worth while briefly to refer to it here, as affording an excellent instance of the great care which should be given to the discrimination of such objects. We shall quote the actual words of Mr. Piddington.†

"Our specimen is apparently the remains of an oblique rhomboidal table, much broken down by exposure to the atmosphere, or to the action of water, and decomposing externally."

"Its external colour, feel, soiling, and hardness when scraped, are exactly those of an impure earthy chalk; * * *."

"Its fracture, seen on a very small surface, is coarse and hackly, and it is of some considerable toughness. It shews also in the fracture thin brown coloured veins, such as are sometimes seen in common earthy iron ores from vegetable matter."

"It is externally very friable and soiling. It adheres a little to the tongue, and feels heavy. The internal colour is that of a dull dirty fawn coloured claystone, the lustre earthy, but perhaps in a strong light a little saccharine."

"The smell is very remarkable, being oily and rancid, as if oil had been spilled upon it; and this especially when it is pulverised or heated high enough to drive off the water. The powder is of a dull, yellowish white colour. The external chalky surface then, is that of the decomposed mineral, * * *. Its specific gravity is but 3.43; * * *."

"*Blowpipe examination.* In the forceps it blackens, softens and sometimes exfoliates a little, or a piece flies off. The most remarkable characters are the blackening and softening, by which last the points of the forceps are deeply impressed into the assay." "The blackened assay affords no trace of a sulphuret, and in the reducing flame the blackness soon goes off, leaving the whole mineral of a dirty greyish white." * * *

"*Via Humida.* * * * By the only analysis for which I could afford an assay, from so small and precious a specimen, I find it to contain

| | per cent. |
|---------------------------------------|-----------|
| Sulphate of Barytes, | 83.52 |
| Carbonate of Lead, | 6.23 |
| Oxide of Iron, | 7.5 |
| Water Organic Matter and loss, | 9.50 |

100.00

"As above-mentioned, we cannot afford to sacrifice any more of this curious specimen for examination, and I should moreover remark that a portion of the external decomposed white crust was unavoidably taken in the analysis made. We have a right however to claim the discovery."

* Capt. J. C. Haughton, Author of Memoir on Geol. Structure of Singhbhoon. Jour. As. Soc. Bengal, Vol. xliii p. 103, 1854.

† Jour. As. Soc. Bengal, Vol. xix, p. 452.

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of it for Lieut. Haughton, and I have therefore named it, provisionally, *Haughtonite*."

We fancy our readers from the above description have probably anticipated the solution of all these curious facts. If not, we will solve their doubts at once, by telling them that this "precious" specimen of a "valuable" new mineral was nothing more nor less than a fragment of old, dried-up *white paint*; it derived its flat table-like form from the surface on which it dried, its curious brown wavy lines from the disseminated films of oil through it, these at once accounting for the blackening and softening when heated; and for the oily and rancid smell. We doubt not, there had been lying in some out of the way corner of the verandah of Capt. Haughton's residence in the country, a box which was the receptacle of all loose fragments of stones belonging to nothing in particular; and that with the many fragments of stones and ores had been thrown a piece of hardened paint, which had lain at the bottom of some earthen pot until it was useless. Such was the *Haughtonite*. We cannot, therefore, admit the other minerals described by the same author, without further and more careful examination.

A wide field still remains for future enquiries in Indian mineralogy; and many will be the additions to the list of Indian minerals. In Bengal, the direction which the railroads have taken passing over ground which is for the most part nearly flat, there will be but little opportunity afforded by cuttings through rock for such collections, but we trust that on the Bombay side of the peninsula, some one interested in such pursuits has been carefully watching the operations of the railway engineers. The vast cuttings through the trap-rocks on the Bhoir Ghaut, must have yielded splendid specimens of the varieties of Zeolites known to occur there. And we shall be greatly surprised, if several other varieties not hitherto observed, have not been brought to notice. We look eagerly to our Bombay brothers of the hammer for information on this point.

During the last few years, the Court of Directors of the East India Company, anxious to do what in them lay to promote the material wealth of this country, sent to each of the three Presidencies of India, a gentleman to act as mineral viewer, with especial reference to the extent of the deposits, and the practicability of working the coals, and iron-ores. The several reports of these gentlemen have now appeared, and we believe the authors have all returned to Europe. These reports are practically valuable, and we would refer those personally interested in such enquiries to them, as affording a considerable amount of information. Mr. David Smith, the gentleman sent to Bengal, has reported on the coal fields of Rancegunge, of Kurhurbari, of

Palamow, and Sirgoojah. We may say that he has not added a single geological fact to those already known regarding these fields. He has discussed fully the probable expense, and the probable difficulties, attendant on the proposed attempt to work the iron ores, and this portion of his report is valuable and important, as giving the candid impressions of one conversant experimentally with such undertakings. His calculations do not very materially differ from those given year before by Mr. Oldham, if allowance be made for the different scale of the works proposed. Mr. Smith's reports regarding the other fields, merely notice the facts of thickness, number of beds and facility for extraction, &c.

In Bombay, Mr. Blackwell visited the Nerbudda district and Sinde, and in his reports has discussed the feasibility of profitably manufacturing iron, and of obtaining coal.

We have not seen any reports by Mr. Wall respecting the Madras districts, with the exception of a short description of his trip to Kotah on the Godavery, published in the Madras Lit. and Phil. Journal,† in which he gives some facts of interest and importance, bearing on the geology of the country.

We have alluded, however, to these reports for a special reason. We should never have looked for a geological description of the country examined in such papers, and yet they afford a tacit and therefore unanswerable acknowledgment, on the part of the authors of these reports, of the value of geological knowledge.

We are not of the school who fancy, that practice, if successful, can ever be opposed to science. We reject *in toto* the absurd distinction of "practical" men, and laugh to ridicule the cant of those who imagine there can be any real opposition in such things. We believe that the great author of inductive science correctly stated the progress of knowledge, "*ascendendo ad axiomata, descendendo ad opera*," we believe that principles must be known before the application of those principles can be safely attempted; and however valuable the manipulative skill, acquired by long continued "practice" and devotion to one pursuit, may be, when that pursuit is to be continued under the same conditions, we know also, that those most likely to be mistaken and led astray, if these conditions be altered, are precisely those most *practical*, most skilled in the mere practice of what they have acquired. We speak strongly on this subject from the frequency with which we hear repeated, "Oh! we want 'practical men'!" And this is eternally dinned into the ears of every one interested in the questions discussed, but chiefly by

* Selections from Records of Bombay Government, New Series, xlv.

† New Series, Vol. II. No. IV, July and September, 1857.

those very persons who know nothing of either the practice or the science involved in the matter.

But to return to our immediate subject. The reports, as we said, of these practical viewers have been published, of men of high, and deservedly high, reputation in their own pursuits; and in *every single instance*, have these gentlemen found it expedient and necessary to enter into *geological* details—to speak of the science, that is, not of the practice—and to do this as the groundwork, the foundation, and the only safe foundation, on which to build up their practical results.

And still, curiously enough, there is not a single instance which does not at once betray the almost total want of acquaintance, on the part of the writers with the very subject matter, which, involuntarily, they felt compelled to introduce. One of these gentlemen, having somewhere become acquainted with the names applied by the Geological Surveyors to different groups of rocks, has apparently put them into a bag, and shaking them up well, has drawn them out in succession and then taken this order, as the order in which they occurred in nature. The proceeding is, at least, impartial.

Now we would here ask, why is this? Why should there be, in matters connected with the physical structure of the earth, a confusion of ideas which does not exist on other points? To us, the answer is obvious—simply this, that there do not as yet exist the general means of acquiring in childhood a knowledge of these matters. Would any sane person be found talking of wanting a “practical” man if it were desired to calculate the height of one of the mountains of the moon, or to measure the parallax of a fixed star. The builder-up of telescopes, the practical optician is here, as in other things, a necessary adjunct to any such operations. To his skill we must be indebted for the beautiful contrivances for abridging space, and measuring minute angular distances, but these contrivances are only the practical embodiment of suggestions derived from, and of wants felt by, others. But why would the optician not be applied to in such a case? Why would the statement of the scientific astronomer be appealed to rather than the dictum of the most skilled workman that ever existed? We believe simply because every person, who has the slightest claim to be considered educated, has been so far instructed from his early youth that he is able to see the distinctness of the two; to acknowledge the beauty of the contrivance and the immense accuracy of the workmanship of the practical man, and to appreciate the wonderful science and command of resources which the astronomer brings to his subject. We think from that the result would be precisely similar, were our youth brought from childhood to a knowledge, however ele-

mentary, of natural science. They would then at least know what the problems to be solved meant, and be able to estimate their chance of undertaking them; they would see where extended and general knowledge came into play, and where limited and practical skill was required.

Surely, it is to this want of early acquaintance with the sublime discoveries of geology, that we may trace the frequent (alas! how often ill judged) attempts to "reconcile" its truths with religious opinions. There still lurks in the minds of many a scarcely-confessed yet only half-concealed dread of the study. Its truths, fairly stated, come upon them with almost alarming novelty, and, we would confess also, with some apparent contradiction to generally received notions. Its reasonings, too, require long and careful study to be fully understood, and however fully comprehended, they still want life, and are weak and inconclusive, unless the student has become actually familiar with the rocks and fossils,—which are the proof of the geologist's propositions—and has actually studied their relations, as they lie in the earth. The few, who give any serious consideration to the matter, admit the truth and value of the proofs submitted to them; and justly argue that what is truth in science, rightly understood, must be truth in religion; and that truth can never be dangerous. But the many who give not this attention to the evidence are so startled by the novelty, that they cannot see the sublimity, of these truths. Their minds are not prepared to admit what, at first blush, seems to be opposed to their earliest, and most fondly-cherished notions. The bearings of geological science, upon the statements of revelation, upon the antiquity of this earth, and the demonstration which its researches afford that death has been the universal law of all organic beings on this globe "from the beginning," require long and repeated thought to be fully comprehended, and cannot therefore be at once received. There must have been here, as in other cases, a large amount of previously acquired knowledge; the soil must have been prepared for the reception of the seed, if we wish that seed to germinate and yield fruit. And we hesitate not to say that this preparation, this previously acquired knowledge, can never be looked for, unless we can see introduced into our schools, and educational establishments of every grade, a certain amount of teaching in practical geology.

And these considerations naturally lead us to say a word or two on the future prospects of geology in this country. We have seen what has been done lately, we have hinted at what still remains to be done, before we can hope for even an imperfect acquaintance with the real structure, or an imperfect knowledge of the mineral wealth of the country. And we think it obvi-

ous, that some considerable change must take place before even this can be looked for. Fellow-workers must be found, who will contribute their *local* knowledge to the general store, fellow-students, who may aid in the working out of the great problems submitted to the Indian geologist.

How then is this to be accomplished? First and most important among the means for attaining this end must be the Geological Survey establishment, and the proper application of all its forces. We have acknowledged its exertions in the examination of the country, and its carefully elaborated reports and maps; but while thus willing to appreciate its labours, we cannot for a moment admit that more than one-half of its proper sphere of duty has been filled, one-half its labours done, by such a course. We believe it to have been clearly the duty of the authorities to establish this Survey; we believe it equally their duty to obtain from it its full measure of usefulness. And we believe that this never can be done unless the staff of that Survey be used as an educating body, as well as an investigating body of skilled labourers. The same gentlemen who have already proved their skill and ability as enquirers, should be, more fully than they are, the means of spreading the knowledge they obtain. In fact, we believe, that the Geological Survey of India should be made both the school for instruction in, and the reward for, a knowledge of the all-important subject of its enquiries.

It is so universally acknowledged as to have become a truism—that no one can teach properly any science of observation who has not been himself an observer. And if there be one kind of enquiry, which more than another demands that the instructor should have had personal and long continued practice in the pursuit, that enquiry is geology. Whence came it that in the earlier ages of our science the wildest speculations and the most absurd theories prevailed. Simply that the writers were content to draw their inspiration not from Nature but from “Nature’s handmaid.” And on the other hand, how has it resulted that the glorious discoveries of modern geology have taken their stand beside other great triumphs of human intellect. Simply, because Nature herself has been investigated for her facts, and so far as these can be rightly interpreted, they must bear the impress of the sublimity of their great source, they must reflect in some degree the unspeakable grandeur of the great (Originator of all.

We hold, therefore, that it is to those personally engaged in the investigation of the geology of this country, that we must look for any practical instruction in the science and its applications. We know that under the direction of the present head of the Survey, an excellent museum of geology has been established in Calcutta, a visit to which will shew, that considering the few

months it has existed, great progress has been made; and that a confident hope may be felt that these collections will become daily more important and valuable. But museums alone are of little value as educational means. The finest collection in the world, unapproachable even in the wonderful variety and beauty of the objects it contains, may interest the eye, and discipline the mind to a general conception of the vastness and the grandeur of those objects; but the full value of even such a collection can never be apprehended by the ordinary visitor. It is the student alone who can estimate its worth. To him its secrets are opened, as in investigating each successive phase of his subject, he finds brought together from all quarters, and grouped in their proper succession, the varied evidences on which his conclusions must be based; and as he is able, by actual personal examination, to follow up that chain of reasoning, testing each link as he proceeds, which has led others to results, at first sight perhaps anomalous and strange. But this advantage can only be developed fully, when the riches of a collection are explained by those who, having made it, are aware of its objects, and its ends.

It was a deeply felt conviction of this, which led to the establishment in England of the school of applied science attached to the Geological Survey of Great Britain, and carried on at the Museum of Practical Geology in Jernyn Street, and it is to this connection that that school owes the proud position it now holds of being the best school of geology in the world. It was a growing conviction of this kind, which produced the extension of similar arrangements to Ireland in connection with the Geological Survey of that country and the Museum in Dublin. And it was further to the same feeling we owe the stipulation, that a necessary part of the duties of the recently appointed director of the natural history department of the British Museum, should be the delivery annually of a course of lectures, illustrating at least one portion of the vast treasures entrusted to his care. We think it must therefore be admitted, that experience has shown that if our collections are to be fully and properly utilized, they must be employed as illustrations of, and as aids to, regular and systematic instruction.

Let it not be supposed here that we would confine such to geology alone. While writing these pages; we have heard with great pleasure, that the Asiatic Society of Bengal has come forward with a noble offer to the Government of this country, to place the whole of their very valuable collections at its disposal, on the sole proviso that the Government do undertake the establishment, and the support, of one general or Imperial Museum in the metropolis. That the collections of the Asiatic Society would form a most important and excellent nucleus for

such a general museum, will not be doubted by any one who knows them. Crowded into inconvenient rooms, badly lighted, and arranged, and badly cared for, still these collections must strike the visitor by their variety, their number and their value. The natural history portion contains by far the best series of Indian birds, which exist in any museum in the world; the osteological collection is varied and valuable, and if in conchology and entomology the museum may be far behind what it might fairly be expected to be, all credit must be given to the society, and to its able curator, Mr. Blyth, for the extent of its general natural history collections. Mineralogy and geology are now to be looked for in the separate museum attached to the Geological Survey office, and may therefore fairly be exempted from the list of the Society's collections, being represented there by a poor collection of minerals, and some unarranged fossils. But there is also a most valuable series of remains possessing great archaeological and historical interest, and of undoubted importance to the students of the history and mythology of this country. We hope the liberal proposal of the Society will be met in the same liberal spirit, and that the great value, the immense importance, of having such a general collection brought together under one roof—each department illustrating the other, each contributing its own chapter to the long and interesting story of the changes which this land of the East has undergone—will be frankly and freely acknowledged. The Council of the Society most justly remark "how important it is that the efforts of all interested in the progress of the various branches of natural science in this city should be combined in one and the same direction." We would quote here the forcible words of Professor Owen, in his Presidential address to the British Association, on assuming the chair of that important scientific body at their last meeting at Leeds, simply remarking that if such combination of powers, and general co-operation, be found useful in London, how infinitely more so must we expect a similar combination to prove here. He said

"In the late location, by liberal permission of the Government, of the Royal, Linnean, and Chemical Societies in contiguous apartments at Burlington House, we hail the commencement of that organization, recommended by the British Association at their first meeting, from which the most important results of combination of present scattered powers, and of a system of intellectual co-operation, may be confidently expected. The combined advantages, including at once the most powerful stimulus and the most efficient guidance of scientific research, have appeared to an eminent member of our body to be beyond calculation."

No locality in the metropolis unites so many elements of conveni-

ence for such a concentration as Burlington House. If, to the application of other scientific societies than the three now there located, the reply should be given "that the State is not called upon to provide room for individuals who may choose to combine for the enjoyment of a special intellectual pursuits;" we may rejoin that such associations seek no selfish profit, but impart the results of their combined labour freely for the public weal. And if a statesman could be supposed to take such ground of objection, one might urge, on grounds as low, that the small amount of support needed for the enterprises and establishment of science is scarce equal to the product of the tax upon discovery and invention ~~for~~ under the existing 'Patent Laws,'—would be a good investment on the part of a nation; and that, viewing such establishments and the prosecution of abstract physical truth, in regard only to their material results, these might assure a Minister disposed to invest in what might seem to him the lottery of science, that the prizes are neither few nor small, nay,—some are incalculably great."

So long as our collections are broken up into detached portions we deprive them of half their value, because they do not afford to the scientific investigator those means of comparison, which from the intimate relations between the several natural sciences, are essential to complete and successful research. "A museum, so far as it is practicable, should exhibit unbroken that series of links 'which actually exists in nature.' And they proceed to insist on the great advantages which must result from the establishment of "one central and general museum in which all our resources '(which on the most sanguine estimate certainly are not likely 'to be excessive) should be concentrated.'" They solicit the Government to undertake the foundation of such a museum, in which all available natural history collections might be combined, and in which should be provided a fitting place of exhibition for other objects of interest, whether physical, economical, or historical; and for the foundation of such a museum the Asiatic Society proposes to bestow all its own collections.

We shall not allude to the many important considerations which are submitted to the Government, as to locality, management, accessibility to the public, and other points, but pass at once to what, at the present moment, we are most anxious to notice, namely that the Council of the Asiatic Society, composed of men representing all branches of science in the ranks of that body, which is itself the representative of the science and learning of the country, have, we rejoice to say, taken the same view of the importance of connecting actual teaching and systematic instruction with the formation of such a museum, and that they point out forcibly the advantages which would result from the proposed arrangements, as they "might be made ancillary to the appointment of Professors of natural science, whose lectures

*would be accessible to all students, from all educational institutions, on terms of perfect equality."

We can only wish success to these well-directed efforts of the Asiatic Society, and we ardently hope that many years may not elapse before we see, in the metropolis of British India, an establishment worthy of the empire, wherein may be concentrated all that is valuable as illustrative of its structure and its resources, where the younger members of society may be trained to habits of observation, and where the more advanced visitors, whose lot it may be to inhabit distant and various localities might, in a morning's visit, obtain a knowledge of what had been already ascertained, and what still remained unknown, regarding the districts where their future abode was destined to be. How immensely important would it be thus to fix the limits of the unknown, and enable the enquirer thus to commence his journey from the very point where the labours of others had ceased.

But while anxiously anticipating such a result, with regard to all the subjects which such a general collection would illustrate, we have partly endeavoured to shew that the facilities for accomplishing all this, with regard at least to one of those subjects, already exist. There must be, if the Geological Survey be efficiently maintained, there must always be on its staff, persons fully qualified to instruct in the several branches of study, which they are daily applying in practice. And these gentlemen, from the peculiar conditions of climate in this country, must be for some months in the year confined to "station." And we would ask, why should not their carefully acquired knowledge be utilized by making them contribute in communicating that knowledge to others? Why should they not be employed in giving courses of instruction in the several subjects in which they are proficient?

It is not our province to enter into any details of such arrangements. We merely suggest what would to us seem feasible. It is for others to carry out such arrangements. But we are satisfied, that until some such facilities for acquiring a knowledge of geology be provided, until a more general taste for such studies be generated, the investigation of the structure of India must be beset with the all but insuperable difficulties, which now meet the enquirer at every point. We know that the questions to be solved are such as *must* arrest the attention of all who have their minds directed towards them, and that this attention once aroused will not again sleep. Then, but not till then, will the geologist in India meet his fellow-student in every district; then will local collectors, and local collections, yield the rich harvest, which none but those steadily, and per-

sonally engaged in the cultivation of the soil can expect to reap. And then, but not till then, will it be possible to bring together the scattered fragments from all quarters of the field, and build up into one living system the GEOLOGY OF INDIA.

Those who have followed us through the preceding pages, will have perceived that we have not entered on the discussion of any of those large and intensely interesting questions, which arrest the geologist at every step of his enquiries in this country, as to the relative age of the rocks of India as compared with European formations; nor alluded to the many grand speculations which inevitably carry away our thoughts, when we attempt to conceive of the mighty physical changes, which have in succession tended to bring the surface of this country into its present form. We have done so intentionally, and for this reason, that we believe such questions are not yet ripe for reasoning. Speculate, of course, we might, but determine, we as yet cannot.

But while thinking it more prudent to avoid the discussion for the present, we may, before concluding, throw out a hint or two which may possibly serve as a guide for future observers.

To an Indian geologist, the "much-vexed" Laterite naturally presents itself first. We remember some years since, when a warm discussion was being carried on as to the true nature of those most interesting remains of vertebrate animals found in the Stonesfield Slate in England, and a marked difference of opinion existed as to whether they should be considered Reptilian or Mammalian, one of the London journals, in reporting some of these excited discussions, suggested that a better name for these minute jaws than either of the long and unpronounceable words which had been given, would be the *BOTHERATIO THERIUM*. And we remember, also, the intense indignation and energy with which the French naturalist protested, that the introduction of new names for what had been already described only tended to confuse, and to retard the progress of science instead of aiding it. The squib of the journalist had been taken as the serious reasoning of a scientific investigator. We cannot claim here the occurrence of any fossils which might lead to such conflicting opinions, but unquestionably, if ever an unfortunate wight of a geologist were *bothered*, he will be when he comes to study the Laterite of India. The name was originally proposed by Buchanan Hamilton, and by him confined strictly to that peculiar kind of semi-indurated clay, highly ferruginous, which in many parts of this country is extracted from the quarry, in so soft a state, as to admit of being readily cut into any required form; but which, from subsequent exposure to the air, and from the consequent desiccation and the simultaneous chemical change

in its contained oxide of iron, soon becomes highly indurated. Successive observers adopted this excellently devised name of Buchanan's, but applied it to rocks of a totally different character, until in the process of time, the word has been, we believe, applied to almost every conceivable variety of mineral, if only it was red in colour. We have seen Jasper labelled Laterite, and we have seen a soft red clay, which could readily be moulded in the fingers, equally called Laterite. It mattered not whether the mass were perfectly homogeneous, or were filled with rolled lumps of other rocks, which have been subjected to long continued attrition; if it only had a good red colour, it has been called Laterite. In reality Laterite, in Indian geological parlance, has been but a synonym for confusion. And we might fairly adopt the joke to which we have alluded above, and call it Bothrationite, or, if this be too *asquipedalian* a word, let us have it Puzzleite.

Several writers have made a distinction of Laterite into two kinds, one of which they call Laterite *par excellence*. This they consider as a kind of volcanic mud. We regret to see that some of the Irish geologists, acting on hints of this kind from this country, have introduced the word Laterite into their nomenclature, as a synonym for the well known bole of the trappean districts of the North of Ireland.* This bole, however, is not a flow of volcanic mud or other matter, but the results of the decomposition *in situ* of layers of Basalt, Amygdaloid, &c. into red ferruginous clays. It appears obvious, that if one rock be in reality a volcanic mud, and another be distinctly a mechanical aggregation of grains of quartz, and much rounded fragments of other materials, it is worse than useless to retain the same name for two things which have had a totally different origin. The real question to be discussed by all who may meet this said Laterite, is the mode of its formation, and its relations to the overlying and underlying groups. They must dismiss all preconceived notions of volcanic action, or any such "authorized" ideas of the mode of its formation, and observe, and state simply, the facts. They will at once find a marked difference between two forms of this protean rock in this, that one has all the evidence of being formed *in situ*, from the decomposition of the subjacent rocks; another carries with it every proof that it is the result of a re-arrangement of degraded fragments of various materials. The one necessarily involves the consideration of a widely extended and long continued action of water, (probably marine)—and this is the form of Laterite more commonly seen, and which is frequently called *kunkur*—the other is in many cases the result of atmospheric causes. But whence comes

* *Edu. Phil. Journal*, New Series, 1856, Vol. iv., p. 304.

all the iron?*. And why is it that this Laterite is not known in other countries? What are the condition of its production, climatal or otherwise—these are questions still to be answered, and towards the solution of which every careful observer may add his quota however small.*

Again, the great Nummulitic group of India, unquestionably one of the most important formations in this country, requires to be worked out in more detail. We know that, from the extreme western limits of our Indian empire, passing northwards to near Peshawur, thence extending almost without interruption along the whole range of the Himalaya, stretching up to the furthest known part of the Assam valley, forming the mass of the Garo and Khasi Hills, occurring in Cachar and Munnipore, and again appearing in great force all along the lower portion of the valley of the Irrawaddi, and, so far as yet known, forming the entire range of the Arracan hills, we have rocks of enormous thickness and of great variety, which, taken on the large scale, can at once be recognized as belonging to the Nummulitic group or the Eocene epoch of Lyell. But, throughout this immense extent, embracing about 20 degrees of latitude and about 40 degrees of longitude, there must necessarily have been at the time of deposition of these rocks immense variety in the nature of the sea bottom, on which the molluscs, now found fossilized in such numbers in these rocks, once dwelt; in the character of the shores which limited that sea, and of the waters which were discharged into that ocean. In short, in all those circumstances and conditions which tend to influence and modify the grouping of the animals and plants then existing along the ancient shores of this great Nummulitic ocean, all these changes have yet to be traced out, and we feel confident, that in charting out the old shores of that early period, the records of a still earlier time will be found preserved, and safely immured in the rocky masses. We have yet no evidence whatever of the relations which these Nummulitic rocks bear to the older Cretaceous rocks of India; nor do we as yet know with any certainty what is the next overlying group. Further, it is a fact that the fauna of these Nummulitic rocks, wherever examined in this country, is for the most part indicative of a moderate depth of water. But there must have been, synchronous with these more literal deposits, deep-water formations. What then are these? Mr. Oldham in his late report on the Khasi hills, p. 171, says. "What then are the representatives, or parallel of these Nummulitic beds in the more cen-

* Some admirable remarks on Laterite will be found in a paper by Lieutenant Aytoun—on the Geology of the Southern Concan—in the *Edinburgh New Phil. Journal*. New Series, Vol. iv, p. 67.

‘tral part of India? Can the group to which I have already elsewhere given the name Mahadeva be in this position? And may not the irregularly developed beds of limestone, which are found accompanying those sandstones, be the faint representatives of this widely extended, and largely developed, Nummulitic limestone? The solution of this question must be left for further and more extended research.”

The important discovery,* by Captain Keatinge, of Cretaceous fossils in the western portion of the Nerbudda valley, where such were not previously known to exist, and the tracing of the Nummulitic group into the Rajpipla hills in the same general district, and near to the typical locality of the Mahadeva rocks, all bear importantly on this question. Further, how are these groups related? Has there been during the period intervening between the two well marked series, a regular and gradual change, or has there been an interval of disturbance, as marked by the unconformable position of the two? If the Mahadeva rocks of Mr. Oldham’s classification be the representatives of the Nummulitic group, we find the supposed representatives of these same Mahadevas in the South of India, resting unconformably upon the Cretaceous rocks of that district. But then, here (at Pondicherry, &c.) we have only the lower portion of the Cretaceous group. Have we in India any rocks belonging to the epoch of the white chalk of England, or the upper part of the great Cretaceous System?†

Another most important question yet to be decided, we would commend to the geologists of Western India. What are the true relations of the beds in Cutch, described by Grant, and from which he obtained his few remains of fossil plants? His description is not sufficiently detailed to enable us to decide. Are they really and truly a part of the same series of rocks, as those from which he procured his undoubtedly Oolitic Ammonites and other molluscs? Or are they not rather a totally separate and unconformable group? We cannot answer. But this is not merely a question of fact, as bearing on the structure of that interesting district; it also assumes great importance in its bearings on the geology of Bengal. In the Rajmahal hills (as Mr. Oldham so long since as 1854 stated) the same plants as are found in Cutch, occur abundantly, but these unfortunately without any associated beds, containing animal remains. They occur in beds, which are “inter-trappean.” What is their true age? Has the great exhibition of such volcanic forces in Bengal been synchronous

Jour. As Soc Bengal, 1858, p 112.

†Mr A Schlagintweit, contrary to the statements of previous observers, and, we believe, quite erroneously, states that the Pondicherry grits *underlie* the Cretaceous rocks.

with that still more powerful and extended development of similar deposits, which cover so many thousand square miles in the Deccan and Western India? Are the "inter-trappean" beds of the one district synchronous with those of the other? What were the peculiarities of climate, of surface, of elevation &c., which led to the entombment of a most varied group of plant remains in one, without a single trace of associated animal organisms, and to the occurrence in the other of a large group of shells and other animal remains, with only a few imperfectly preserved plants? These questions all remain to be worked out.

Again, in the report by the Geological Survey on the Talcheer coal field, a thick group of sandstones has been equally called Mahadeva, as occurring in the same relative portion with reference to the coal-bearing rocks of that district, as do the typical Mahadeva rocks of Central India. Are they truly of the same epoch? It is as yet quite unproved.

And here we might, with advantage, dwell at some length on the vast importance, nay the absolute necessity, of the most careful and philosophical investigation of fossil remains in the rocks of this country, before hastily referring the beds in which they occur to European types or epochs. The finding of a single fossil, the position of which has been well established in Europe, has been held to be sufficient evidence on which to base the unhesitating reference of the bed in which it occurred, to the corresponding beds in Europe. Most erroneously, we think. In Palæontology, this law at least seems thoroughly established, on the widest and soundest induction, that those species which are found to have had the greatest geographical, had also the greatest chronological extension, that is, that those which are found over the greatest limits in space, will also be found over the greatest limits in time. The occurrence, therefore, of the *same* fossils, (we mean truly identical species,) at opposite sides of our globe, instead of proving that the beds in which they occur were of truly synchronous deposition, to our mind proves precisely the opposite. This seems to be also a necessary consequence of admitting that species have had centres of distribution, or that they have originated from single pairs, or single individuals. Before, therefore, the true value of the testimony afforded by any such fossil can be estimated, the time and the place of its first appearance must be determined, as well as the period and the locality of its maximum development, and also of its final disappearance. If animals and plants do spread from given centres or in certain directions; this very distribution involves the idea of lapse of time, and of how much time, we know not.

But there are other most important considerations, which are frequently neglected. In what consists the very marked differ-

ence between the lower Tertiary shells, and those now existing in the temperate seas of Europe and America? Is it not in the general *tropical aspect* of the one, as compared with the more temperate facies of the other? We speak of the group considered as a whole, not of individual species. Take a series of English Eocene fossils, and compare them with a series of existing shells, collected on the one hand from the shores of Northern Europe, and on the other from the shores of Africa or Asia; from the former they will be found to be totally distinct, to the latter they will be seen to bear a very marked resemblance, a resemblance so marked, that it often requires a close examination and nice discrimination, to note the differences. Was there not, then, a similar climatal difference in the shells of former periods, and are we not reasoning altogether on false grounds, when we seek to establish identity in epoch from identity in general character, between fossiliferous rocks in the tropical regions of our Indian empire, and the temperate and boreal districts of Europe.

We accept, therefore, not only as convenient and useful, but as philosophical and true, the attempt made by the officers of the Geological Survey in this country, to establish the real succession of the rocks, and to give to the separate groups local names; indicating at the same time their probable analogues in European classification, rather than to define this group as "Oolitic" than as "Cretaceous," &c. Much, very much, yet remains to be done, before any such accurate identification of rocks in this country with those in Europe, can be satisfactorily accomplished.

Further, there is the important series of beds associated with the great coal deposits of this country. What is its geological age? This is as yet altogether undetermined. This assertion may perhaps startle some of our readers. We know that it has very plausibly been put down as of the Oolitic epoch, and it may be so, and we fully appreciate the careful elaboration of the argument in the hands of the Rev. Mr. Hislop. But it must be remembered that his reasonings depend on misconceptions, and are, therefore, to a great extent valueless. The fossil evidence he has brought together has been accumulated from beds which he believed to belong to one and the same series, but which have since been proved to be of totally different epochs. And the necessary consequence of this is, that although a portion of these rocks may finally be proved to belong to the Oolitic period, still the remainder *must* be of different series. What then are these? The discovery by Mr. Hislop of many *Ceratodus* teeth at ~~Maldive~~ South of Nagpore (which were exhibited to the Asiatic Society not long since by Mr. Oldham,) seems to prove that

some at least of these beds are of Triassic age,* while the Permian analogies of the reptilian remains found in the same neighbourhood, and close to the same locality, were pointed out by the Geological Survey in their report on Talcheer. In the Himalaya we know for a certainty of the occurrence of Jurassic, Liassic, Triassic, Permian, Carboniferous and Silurian rocks: and yet it is scarcely using too strong a phrase to say we know nothing more than the mere fact of their occurrence.

Here, then, is a rich store of questions both theoretical and practical to interest geologists, for ages to come. Let no one, who has an opportunity of contributing a single fact to the general stock, hesitate to do so. So little is in reality known, that in all probability, however trivial that fact may appear, it will prove novel. And let all bear constantly in mind that the area to be examined is so immense, and the labourers as yet so few, it is only by a combination of detached results and by a grouping of facts, in themselves isolated and useless, but which may to others prove the key to much that is now concealed, that any large success can be hoped for.

What a grand picture will one day be worked up from the many rough sketches which are now being coarsely outlined here and there, when we shall be able to trace out the cycle of changes through which this land has passed; to depict the successive rising of its mountain ranges from the depths of the ocean; to tell the times and seasons when first its massive gñats reared their huge summits; to map out its old shores, to track its bays and gulfs and deltas; to see the swamps in which wallowed the Hippopotamus of old, and the forest glades where fed the Mastodon, or the more sandy plains over which the Sivatherion roamed; and to trace through all these mighty revolutions, organic and inorganic, the gradual adaptation of the surface for its final occupation by man—in a word, when we shall be able to picture forth in full detail the PHYSICAL HISTORY of our Indian Empire!

* Mr Wytham years since alluded to the Triassic aspect of some of the fossil plants of the Rajmahal hills —*Jour As Soc Bengal*, 1854, p. 263 .

ART. VIII.—*Reports on the Indian Service Funds. Various years.*

THE only data, so far as we are aware, applicable to the mortality of Christian female life in India, is that afforded by the records of the Provident Funds established in connexion with the Indian Civil and Military Services. But owing to the imperfect manner in which, at an early period, many of the fund registers appear to have been kept, these data are of a very limited character, and we have thus less hesitation in introducing the following observations touching the mortality among the female nominees and incumbents on the Uncovenanted Service Family Pension Fund of Bengal.

It appears that during the twenty years ending 30th April 1857, 825 married females were admitted to the benefits of the Fund, of whom during that period 128 died, 135 discontinued connexion with the Fund, and 562 were alive and on the institution at the expiry of the term. In the lists furnished to us—which we had occasion to examine in connexion with another enquiry—Europeans and Eurasians are not distinguished, but of 945 male members of the Fund no less than 75 per cent., or about three-fourths, are Eurasians, and it is believed that even a larger proportion of the females are persons of mixed European and Asiatic parentage or the descendants of such—a class conventionally termed in India, “East Indians” or “Eurasians.”

In all investigations into the mortality among females on the Indian funds, it has been found necessary to make a clear distinction between the married women and the widows. The latter—more especially the widows of Covenanted Civil and Military officers—almost invariably return to Europe, or retire to some of the hill sanatoria in India; but the former, we may suppose, have to accompany their husbands and share to a certain extent in the risks and vicissitudes incidental to a residence in India.

We shall, in the first instance, exhibit the results on the whole of the experience, and then indicate the difference between the mortality of the married women and widows, so far as revealed by the limited data now under observation.

In the explanation of the following table containing the principal elementary facts from which to deduce the rate of mortality applicable to married women and widows on the Uncovenanted Fund, we have adopted very nearly the phraseology employed by Mr. Neison on similar occasions, upon which it would be difficult to improve.

- a. Represents the age.
- b. The number of subscribers entering at each age.
- c. The number remaining under observation from each preceding age. Thus five entered at age fifteen, of whom two come under one of the contingencies contemplated in the succeeding columns, and the remaining three are re-entered as under observation at age sixteen, when other twenty enter, there being then twenty-three under observation in all, of whom two pass from notice at 30th April 1857, and the remaining twenty-one are entered in this column opposite age seventeen.
- d. The total number under observation at each age. Thus there were twenty-one remaining under observation from the preceding age at age seventeen, which added to the twenty-seven entering at that age makes forty-eight in all, of whom one dies, one withdraws, and four are alive at 30th April 1857, leaving forty-two to be carried forward to column c opposite age eighteen.
- e. The number dying at each age.
- f. Those whose connexion with the Fund is discontinued.
- m. The number alive.
- n. The total of columns c, f, and m.
- o. One-half of the numbers in column b.
- p. One-half of the numbers in column f.
- q. Total of o and p.
- r. The number exposed to one entire year's risk of mortality ; and is obtained for each age, by deducting the number in column q from the number in column d opposite the age. As subscribers enter at various periods throughout the year, the persons represented by the numbers in column b are, one with another, not subject to more than six months' risk, or which is the same thing one-half of them to a year's risk. And as nominees discontinue at various periods, throughout the year, they are, one with another, subject to only six months' risk in that year, or one-half of them to a whole year's risk. Hence one-half of the number entered, and one-half of the number discontinued, have to be deducted from the gross number under observation, as exhibited in column d, the residue in column r, being the number exposed to a complete year's risk.

ABSTRACT A.

From 1st May 1837 to 30th April 1857.

| Age. | Number engaged at each age. | Number remaining under observation from preceding age. | Total number under observation at each age. | Died. | Withdrawn (Discontinued) | Alive at 30th April 1857. | Total gone off. | HALF OF DISCONTINUED AND HALF OF ENTERED | | | Number exposed to risk. |
|------|-----------------------------|--|---|-------|--------------------------|---------------------------|-----------------|--|--------------|-------|-------------------------|
| | | | | | | | | Entered | Discontinued | Total | |
| 15 | 5 | ... | 5 | ... | ... | 2 | 2 | 2.5 | ... | 2.5 | 2.5 |
| 16 | 2 | ... | 2 | ... | ... | 2 | 2 | 10 | ... | 10 | 13 |
| 17 | 27 | 21 | 48 | 1 | 1 | 4 | 6 | 13.5 | .5 | 14 | 31 |
| 18 | 42 | 42 | 84 | ... | 4 | 4 | 10 | ... | 2 | 23 | 61 |
| 19 | 46 | 74 | 120 | ... | 1 | 5 | 6 | 23 | .5 | 23.5 | 96.5 |
| 20 | 46 | 114 | 160 | 2 | 6 | 11 | 19 | 23 | 3 | 26 | 134 |
| 21 | 52 | 141 | 193 | 4 | 9 | 14 | 28 | 26 | 4 | 30 | 163 |
| 22 | 43 | 167 | 210 | 5 | 6 | 18 | 28 | 21.5 | 4.5 | 26 | 144 |
| 23 | 36 | 174 | 210 | 4 | 6 | 18 | 28 | 18 | 3 | 21 | 149 |
| 24 | 40 | 182 | 232 | 5 | 7 | 14 | 26 | 26 | 3.5 | 29.5 | 203.5 |
| 25 | 42 | 206 | 248 | 5 | ... | 21 | 31 | 21 | 2.5 | 23.5 | 244.5 |
| 26 | 45 | 217 | 262 | 3 | 7 | 16 | 28 | 22.5 | 3.5 | 26 | 236 |
| 27 | 48 | 236 | 284 | 4 | 4 | 28 | 40 | 24 | 4 | 28 | 256 |
| 28 | 38 | 244 | 282 | 5 | 4 | 26 | 39 | 19 | 4 | 23 | 259 |
| 29 | 27 | 248 | 270 | 8 | 3 | 24 | 39 | 13.5 | 1.5 | 15 | 255 |
| 30 | 24 | 231 | 255 | ... | 9 | 20 | 37 | 12 | 4.5 | 16.5 | 238.5 |
| 31 | 24 | 218 | 242 | 7 | 6 | 26 | 36 | 12 | 2.5 | 14.5 | 227.5 |
| 32 | 22 | 204 | 226 | 7 | 4 | 22 | 33 | 11 | 2 | 13 | 213 |
| 33 | 20 | 193 | 213 | 5 | 5 | 16 | 26 | 10 | 2.5 | 12.5 | 200.5 |
| 34 | 27 | 187 | 214 | ... | 10 | 19 | 32 | 13.5 | 5 | 18.5 | 193.5 |
| 35 | 10 | 182 | 192 | 2 | 1 | 25 | 28 | 7.5 | .5 | 8 | 189 |
| 36 | 20 | 169 | 189 | 5 | 4 | 10 | 19 | 10 | 2 | 12 | 177 |
| 37 | 17 | 170 | 187 | ... | 3 | 15 | 21 | 5.5 | 1.5 | 7 | 174 |
| 38 | 17 | 160 | 177 | 6 | 5 | 16 | 27 | 4.5 | 2.5 | 11 | 168 |
| 39 | 12 | 150 | 162 | 1 | 2 | 16 | 19 | 6 | 1 | 7 | 155 |
| 40 | 9 | 143 | 152 | 3 | 2 | 13 | 14 | 4.5 | 1 | 5.5 | 148.5 |
| 41 | 5 | 134 | 142 | 1 | 2 | 15 | 18 | 4 | 1 | 5 | 137 |
| 42 | 10 | 124 | 134 | 2 | 1 | 12 | 15 | ... | .5 | 5.5 | 124.5 |
| 43 | 8 | 119 | 127 | 4 | 1 | 12 | 17 | 4 | .5 | 4.5 | 122.5 |
| 44 | 7 | 110 | 117 | 3 | 1 | 8 | 12 | 3.5 | .5 | 4 | 113 |
| 45 | 5 | 105 | 113 | 3 | 3 | 11 | 17 | 4 | 1.5 | 5.5 | 107.5 |
| 46 | 4 | 96 | 100 | 2 | 1 | 13 | 16 | 2 | .5 | 2.5 | 97.5 |
| 47 | 4 | 84 | 88 | 1 | ... | 13 | 14 | 2 | ... | 2 | 86 |
| 48 | 1 | 74 | 75 | 1 | 1 | 9 | 11 | .5 | .5 | 1 | 74 |
| 49 | 1 | 64 | 65 | 2 | ... | 7 | 9 | .5 | ... | .5 | 64.5 |
| 50 | 2 | 56 | 58 | 4 | 2 | 7 | 13 | 1 | 1 | 2 | 56 |
| 51 | 1 | 45 | 46 | ... | ... | 5 | 5 | .5 | ... | .5 | 45.5 |
| 52 | 1 | 41 | 42 | ... | ... | 3 | 3 | .5 | ... | .5 | 41.5 |
| 53 | ... | 39 | 39 | 1 | ... | 4 | 5 | ... | ... | ... | 39 |
| 54 | ... | 34 | 34 | 1 | ... | 7 | 8 | ... | ... | ... | 34 |
| 55 | ... | 28 | 28 | 1 | ... | 5 | 6 | ... | ... | ... | 26 |
| 56 | 1 | 20 | 21 | 1 | ... | 3 | 3 | .5 | ... | .5 | 20.5 |
| 57 | ... | 18 | 18 | ... | ... | 4 | 4 | ... | ... | ... | 18 |
| 58 | 1 | 14 | 15 | ... | ... | 3 | 3 | .5 | ... | .5 | 14.5 |
| 59 | ... | 12 | 12 | ... | ... | 1 | 1 | ... | ... | ... | 12 |
| 60 | ... | 11 | 11 | ... | ... | 2 | 2 | ... | ... | ... | 11 |
| 61 | ... | 9 | 9 | ... | ... | 1 | 1 | ... | ... | ... | 9 |
| 62 | ... | 8 | 8 | 2 | ... | 1 | 3 | ... | ... | ... | 8 |
| 63 | ... | 5 | 5 | ... | ... | 1 | 1 | ... | ... | ... | 5 |
| 64 | ... | 4 | 4 | 1 | ... | 1 | 2 | ... | ... | ... | 4 |
| 65 | ... | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | 2 |
| 66 | ... | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | 2 |
| 67 | ... | 2 | 2 | ... | ... | 1 | 1 | ... | ... | ... | 2 |
| 68 | ... | 1 | 1 | ... | ... | 1 | 1 | ... | ... | ... | 1 |
| | | | | | | | | 202 | 200 | 402 | 587.5 |

The following is an abstract of the particulars in the preceding table :—

ABSTRACT B.

| Age. | Number exposed to the risk of mortality. | Died. | Mortality per cent. |
|-----------|--|-------|---------------------|
| 15—19 | 207. | 3 | 1.4493 |
| 20—24 | 873.5 | 20 | 2.2897 |
| 25—29 | 1230.5 | 25 | 2.0317 |
| 30—34 | 1075. | 30 | 2.7907 |
| 35—39 | 861. | 17 | 1.9744 |
| 40—44 | 647.5 | 13 | 2.0077 |
| 45—49 | 429.5 | 9 | 2.0955 |
| 50—54 | 216. | 6 | 2.7778 |
| 55—59 | 91. | 2 | 2.1978 |
| 60—64 | 37. | 3 | 8.1081 |
| 65—68 | 7. | „ | „ |
| Total ... | 5675 | 128 | 2.2555 |

It thus appears that during 5675 years of risk, to which the females on the Fund have been exposed, 128 died, the mortality being 2.2555 per cent. At age 15 to 54 inclusive which comprises 97.62 per cent. of the whole experience, the mortality is at the rate of 2.2202 per cent. as appears from the following abstract :—

ABSTRACT C.

| Age. | Number exposed to the risk of mor- tality. | Died. | Mortality per cent. |
|-------|--|-------|------------------------|
| 15—24 | 1080.5 | 23 | 2.1286 |
| 25—34 | 2305.5 | 55 | 2.3856 |
| 35—44 | 1508.5 | 30 | 1.9887 |
| 45—54 | 645.5 | 15 | 2.3238 |

* It will be interesting to place these results in juxta-position with the results applicable to the male members of the Fund generally and the East Indian male members of the Fund as obtained from a recent Article in the *Calcutta Review*.*

ABSTRACT D.

| Age. | NUMBER EXPOSED TO RISK | | | MORTALITY PER CENT. | | | Age. |
|-------|------------------------|---------------------------|----------------------|----------------------|---------------------------|----------------------|-------|
| | Females on the Fund. | The whole of the Members. | East Indian Members. | Females on the Fund. | The whole of the Members. | East Indian Members. | |
| 15—20 | 341. | . | . | 1.4663 | ... | ... | 15—20 |
| 21—25 | 964. | 186. | 173.5 | 2.3859 | ... | ... | 21—25 |
| 26—30 | 1244.3 | 747. | 624. | 2.2499 | 1.6064 | 1.1218 | 26—30 |
| 31—35 | 1025.5 | 1275.5 | 1019. | 2.3403 | 1.3328 | 1.2758 | 31—35 |
| 36—40 | 818.5 | 1329.5 | 1023.5 | 2.1991 | 1.8804 | 1.8564 | 36—40 |
| 41—45 | 608.5 | 998.5 | 749. | 2.1364 | 3.5053 | 3.7383 | 41—45 |
| 46—50 | 378. | 683. | 448.5 | 2.6455 | 2.7818 | 2.4526 | 46—50 |
| 51—55 | 186. | 421. | 283.5 | 1.6129 | 5.7007 | 5.6437 | 51—55 |
| 56—60 | 76. | 238.5 | 147.5 | 3.3158 | 2.9350 | 2.7119 | 56—60 |
| 61—65 | 28. | 115.5 | 76. | 10.7143 | 12.9872 | 11.8421 | 61—65 |
| 66—70 | 5. | 52.5 | 33.5 | . | 9.5238 | 11.9403 | 66—70 |
| 71—75 | . | 9. | 3. | .. | 33.3334 | 66.6667 | 71—75 |
| 76—79 | .. | 4. | . | . | 25.0000 | ... | 76—79 |
| Total | 5675. | 6060. | 4581. | 2.2555 | 2.6898 | 2.4667 | |

It thus appears that, although on the whole experience the mortality of the females is less than that of either of the other two classes,* the deaths at the early ages are considerably in excess of what are observed to occur amongst the males.

Before proceeding further it would be curious to ascertain whether there is any apparent difference between the mortality of the widows and married women on this Fund. The whole data available is so very limited, that great caution is necessary in founding any conclusion on it whatever; but the mortality at the early ages being nearly double what Mr. Neison and Mr. Davies suppose to prevail in other Indian funds, some attempt at explanation may not be without profit.

The following table then indicates the mortality amongst the widows the explanation of the different columns being the same as that applicable to abstract A. above.

* This is in accordance with what obtains elsewhere. During the seven years 1838—44 the mortality per cent. per annum in England and Wales was amongst males 2.270 and females 2.104. During the 10 years 1845—54 the mortality amongst the males was 2.364 and the females 2.205 per cent. per annum while the Chester, Government Annuitants, and other tables of mortality, give a higher value to female than to male life. It is to be observed however, that the table prepared by the Committee of Actuaries of London applicable to *Assured Lives*, indicates the mortality from age 10. to the extremity of life, of females to be 3.35. per cent., and of males, only 1.7288 per cent.

ABSTRACT E.

From 1st May 1837 to 30th April 1857.

| Ages. | Number entered at each age. | Number remaining under observation from preceding age | Total number under observation at each age. | Died | Discontinued. | Alive at 30th April 1857 | Total gone off. | HALF OF DISCONTINUED AND HALF OF ENTERED. | | | Number exposed to risk. |
|-------|-----------------------------|---|---|------|---------------|--------------------------|-----------------|---|---------------|--------|-------------------------|
| | | | | | | | | Entered. | Discontinued. | Total. | |
| 18 | 1 | 0 | 1 | 0 | | | | 0 | | 0 | 1 |
| 19 | 1 | 1 | 2 | | | | | .5 | | .5 | 1.5 |
| 20 | 1 | 2 | 3 | | | | | .5 | | .5 | 2.5 |
| 21 | 2 | 3 | 5 | | | 1 | 1 | 1. | | 1. | 4 |
| 22 | 1 | 4 | 5 | | 1 | | 1 | | .5 | .5 | 8.5 |
| 23 | 1 | 5 | 6 | | 1 | | 1 | .5 | .5 | 1. | 3. |
| 24 | 3 | 8 | 11 | | 1 | | 1 | 1.5 | .5 | 2. | 4 |
| 25 | 6 | 14 | 20 | | 1 | | 1 | | .5 | .5 | 4.5 |
| 26 | 6 | 20 | 26 | | 1 | | 1 | 3. | 5 | 3.5 | 6.5 |
| 27 | 6 | 26 | 32 | | | 8 | 3 | 4. | | 4. | 13. |
| 28 | 1 | 27 | 28 | | 1 | | 1 | .5 | .5 | 1. | 14. |
| 29 | 6 | 33 | 39 | | | 4 | 4 | 2.5 | | 2.5 | 16.5 |
| 30 | 7 | 40 | 47 | | 1 | | 1 | 3.5 | .5 | 4 | 18. |
| 31 | 1 | 41 | 42 | | 3 | 2 | 2 | .5 | 1.5 | 2. | 20. |
| 32 | 7 | 48 | 55 | 1 | 2 | 4 | 7 | 3.5 | 1. | 4.5 | 19.5 |
| 33 | 6 | 54 | 60 | | 3 | 3 | 6 | 2.5 | 1.5 | 4 | 14. |
| 34 | | 60 | 66 | | 1 | | 3 | | .5 | 5 | 15.5 |
| 35 | 9 | 69 | 78 | | | 6 | 6 | 4.5 | | 4.5 | 17.5 |
| 36 | 9 | 78 | 87 | | | 3 | 3 | 4.5 | | 4.5 | 20.5 |
| 37 | 3 | 81 | 84 | | | 8 | 3 | 1.5 | | 1.5 | 22.5 |
| 38 | 4 | 85 | 89 | 1 | 1 | | 2 | 2. | .5 | 2.5 | 23.5 |
| 39 | 2 | 87 | 89 | | | 4 | 4 | 1. | | 1. | 25. |
| 40 | 7 | 94 | 101 | | | 2 | 2 | 3.5 | | 3.5 | 25.5 |
| 41 | 8 | 102 | 110 | | | 2 | 2 | 4. | | 4. | 31. |
| 42 | 4 | 106 | 110 | | | 5 | 5 | 2. | | 2 | 35 |
| 43 | 6 | 112 | 118 | 1 | | 3 | 4 | 2.5 | | 2.5 | 34.5 |
| 44 | 4 | 116 | 120 | 2 | | 3 | 5 | 2 | | 2 | 35. |
| 45 | 3 | 119 | 122 | 1 | | 5 | 6 | 1.5 | | 1.5 | 33.5 |
| 46 | 1 | 120 | 121 | 2 | 1 | 5 | 8 | .5 | .5 | 1. | 29. |
| 47 | | 121 | 122 | | | 6 | 6 | | | | 22. |
| 48 | 4 | 125 | 129 | | | 1 | 1 | 2 | | 2. | 18. |
| 49 | 1 | 126 | 127 | 2 | | 4 | 6 | 5 | | 5 | 19.5 |
| 50 | | 127 | 127 | 2 | | 2 | 4 | | | | 14 |
| 51 | 1 | 128 | 129 | | | 1 | 1 | .5 | | .5 | 10.5 |
| 52 | 3 | 131 | 134 | | | 1 | 1 | 1.5 | | 1.5 | 11.5 |
| 53 | | 134 | 134 | | | 1 | 1 | | | | 12. |
| 54 | 5 | 139 | 144 | | | 3 | 3 | 2.5 | | 2.5 | 12.5 |
| 55 | | 144 | 144 | | | 2 | 2 | | | | 13. |
| 56 | | 145 | 145 | 1 | | 2 | 3 | | | | 11. |
| 57 | 2 | 147 | 149 | | | 2 | 2 | 1. | | 1. | 9. |
| 58 | 1 | 148 | 149 | | | | | .5 | | .5 | 9.5 |
| 59 | | 149 | 149 | | | 1 | 1 | | | | 9. |
| 60 | | 150 | 150 | | | 2 | 2 | | | | 8. |
| 61 | | 150 | 150 | | | 1 | 1 | | | | 6. |
| 62 | | 151 | 151 | 1 | | 1 | 2 | | | | 5. |
| 63 | | 152 | 152 | | | 1 | 1 | | | | 3. |
| 64 | 1 | 153 | 154 | 1 | | 1 | 2 | .5 | | .5 | 2.5 |
| 65 | | 154 | 154 | | | | | | | | 1. |
| 66 | 1 | 155 | 156 | | | 1 | 1 | .5 | | .5 | 1.5 |
| 67 | | 156 | 156 | | | 1 | 1 | | | | 2. |
| 68 | | 157 | 157 | | | 1 | 1 | | | | 1. |
| 137 | 137 | 645 | 772 | 15 | 18 | 94 | 127 | 63.5 | 9. | 72.5 | 699.5 |

The following table is a condensed synopsis of the results in the preceding abstract. These numbers are so small that no safe conclusion can be formed from them :—

ABSTRACT F.

| Age. | Number exposed to the risk of Mortality. | Died. | Mortality per Cent. |
|--------|--|-------|---------------------|
| 21—25 | 19. | „ | „ |
| 26—30 | 68. | „ | „ |
| 31—35 | 90.5 | 1 | 1.1050 |
| 36—40 | 118. | 1 | .8475 |
| 41—45 | 169. | 4 | 2.3669 |
| 46—50 | 102.5 | 6 | 5.8537 |
| 51—55 | 60.5 | „ | „ |
| 56—60 | 45.5 | 1 | 2.1978 |
| 61—65 | 17.5 | 2 | 11.4286 |
| 66—68 | 4.5 | „ | „ |
| Total, | 695. | 15 | 2.1583 |

We conclude by comparing the results arising out of the present enquiry with the tables applicable to females on the Indian Funds adopted by Mr. Neison, Mr. Davies, and others in their Reports.

In his Reports on the Bengal Civil and Military Funds Mr. Davies adopts, as applicable to married women—"with a slight variation by way of increase of the mortality at the younger ages"—the table employed by him in investigating the Madras Military Fund in 1839, which is obtained from observations of the casualties amongst the widows and daughters on that Fund. Mr. Neison, for want of a better, uses the same table in his Reports on the Civil and Military Funds. The only original
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nal data applicable to widows is that obtained by Mr. Davies from a record of 500 widows on the Bengal Military Fund, which he employs in testing the condition of that fund, and also of the Civil Fund; while Mr. Neison declares that for all practical purposes, the mortality of the widows on the Indian funds may be considered identical with that of the female population of England and Wales from 10 and upwards, as exhibited on page 5 of "Contributions to Vital Statistics."

The following table then sufficiently explains itself. With exception of column *b* all the results are obtained from the *adjusted* tables of decrements:—

ABSTRACT G.

| Female No. of Widows and Daughters connected with the Uncovered Ser-vice Family Pension Fund. | | Widows and Daughters connected with the Madras Military Fund. | Widows on the Bengal Military Fund. | Females, England & Wales. | Ages. |
|---|----------|---|-------------------------------------|---------------------------|----------|
| | | Davies | Davies. | Neison. | |
| <i>a</i> | <i>b</i> | <i>c</i> | <i>d</i> | <i>e</i> | <i>f</i> |
| 16—20 | 1,4771 | 1 0078 | 1,0309 | 7782 | 16—20 |
| 21—25 | 2,3859 | 1,0613 | 1,0766 | ,8981 | 21—25 |
| 26—30 | 2 2499 | 1,1623 | 1,0929 | ,9962 | 26—30 |
| 31—35 | 2 3403 | 1,4502 | 1,1210 | 1,0888 | 31—35 |
| 36—40 | 2,1991 | 1 7567 | 1 1498 | 1,1664 | 36—40 |
| 41—45 | 2,1364 | 2 1279 | 1,1666 | 1 2555 | 41—45 |
| 46—50 | 2,6455 | 2,5040 | 1,3091 | 1,4146 | 46—50 |
| 51—55 | | 3,0050 | 1 4012 | 1 6970 | 51—55 |
| 56—60 | | 3,5363 | 1,6680 | 2,2191 | 56—60 |
| 61—65 | | 4 2959 | 2,2727 | 3 0175 | 61—65 |
| 66—70 | | 5,5336 | 3,4000 | 4,3852 | 66—70 |
| 71—75 | | 7,7183 | 5 4321 | 6,5158 | 71—75 |
| 76—80 | | 11,0438 | 8,9923 | 9,7771 | 76—80 |
| 81—85 | | 16,8707 | 14,8428 | 14 3974 | 81—85 |
| 86—90 | | 23,7705 | 22,5641 | 20 5772 | 86—90 |
| 91—95 | | 34,6151 | 33,3334 | 28,0026 | 91—95 |

It is to be observed that the ladies on the Civil and Military Funds are nearly all, or at any rate the vast majority of them, Europeans, while as before remarked those on the Un-covenanted Fund, are chiefly East Indians. There can be no doubt that the increased mortality, especially at the younger ages which obtains amongst the latter class, is attributable almost en-

tirely to the system of early marriages so common amongst the Eurasian community. Long before an English girl has left school, these sunburnt fair ones appear to lavish their

“ . . . true bloom and health

And bridal beauty . . . ”

on the fortunate and not less precocious objects of their choice. All the cares of maternity devolve on girls of 15 and 16, and in many cases ere attaining the age of 19 and 20 they are surrounded by a numerous offspring. But the fatal consequences of this passionate precipitancy, are disclosed by the inexorable figures in the preceding abstracts, and we are assured that the excessive disparity between column *b*, and the succeeding columns, in the last table, is wholly due to this cause, or rather to the exhaustion consequent on repeated accouchements at such an early period of life. The influence of such mothers on the moral and intellectual development of their children, must either be *nil*, or of a very prejudicial character.

Upon the whole, we are inclined to conclude that the data now submitted may be fairly received, as a guide to the mortality amongst the better class of East Indian females; but we are of opinion that Mr. Davies in the above table, column *c*, has somewhat understated, especially at the early ages, the mortality amongst European married women resident in this country. It is notorious to all who have lived in India that ladies suffer terribly from the climate, and that many of them sink under it.

ART. ~~IX~~.—1. *Madras Irrigation Company's Prospectus*. 1858.

2. *Western India Irrigation Company's Prospectus*. 1858.

IF those words of grace that wound up the Queen's Proclamation with a promise of material benefits to India, are to be more substantial than the cheer with which they were received, it is very evident that the progress of Public Works must, somehow or other, be made independent of the varying financial necessities of the State. The history of their progress now is that of a tidal fluctuation, not of a flowing stream. When all means needful for rapid execution have been organised, and are partially at work, suddenly there comes an order to reduce expenditure, to dismiss establishments, and to break up all the laboriously formed mechanism of active progress. The excuse is a stern necessity, the great source of capital having shewn symptoms of exhaustion, and the present State of the finances being the unanswerable reason for stopping the supplies. So long therefore as the development of Public Works is, so to speak, a function of the State Revenues directly, so long must it ebb as they ebb and flow as they flow. Such a life of dependence is neither happy nor healthy for the country; its march must be unsteady, and the costs of such intermittent progress as it makes are enormously enhanced. Neither largeness of plan nor vigour of execution is possible, while over every design there hangs, like a sword of Damocles, the ever possible decree that the Government Treasury has reached its limits and can no more.

Nor is it clear why Public Works destined to benefit generations of men yet unborn, should be paid for wholly by the generation that exists, as is the result of executing work on current revenues. The truth is that in many cases the men who, under such a system, pay for the works, are not unfrequently those who derive the minimum benefit from them. There are comparatively few remunerative projects that spring at once into profitable existence. In most cases there is the period of expectation more or less protracted, which precedes that of fruition, and even when partial benefits are enjoyed during the former stage, profit is progressive, and the children of men who saw the works commenced are more likely to reap the full harvest of results than their fathers. Most notably is this the case in works designed to break the slavish dependence of agriculture on varying and uncertain seasons. We place but scanty confidence in those assurances, which from time to time we receive of irrigation projects returning such and such profit, after a few years of active existence. If they are true, they are to be deplored as indicating a system of revenue exaction pitiable to think of. We be-

lieve, however, that they are not true, but are the results of erroneous methods of estimating results, and only one example the more of the fallacy of figures. We believe that, while the development of the benefits from such works under ordinary conditions is as surely progressive as the fall of a stone or the flow of a stream, its earlier stages when healthy are slow, and its highest benefits are the heritage of the future rather than the enjoyment of the present.

At whatever point in time, however, the remunerative returns may be arrived at, no one questions the fact that the works from which they are to be derived are certain to benefit future generations, and therefore these generations ought fairly to pay their share of the cost of executing them. This can only be done by borrowing the needful capital, either in the form of a direct loan to Government, or more indirectly, but essentially in the same way, by permitting the investment of private capital in such works on terms agreeable to its proprietors. These courses are each, not necessarily but practically, connected with special methods of working, on the principles of which we have a few preliminary words to say.

When the State opens a Public Works loan, and applies its proceeds in accordance with its objects, the entire machinery of execution is a Governmental one, construction and supervision alike being entrusted to officers, the servants of the State. When on the other hand the State prefers using private capital supplied by Companies, the functions of construction and supervision are disunited, the former being exercised by the servants of the Company, the latter by those of the State. This division has become an established one, and is not likely to be departed from. Now it is a delicate and doubtless difficult problem to determine under what circumstances, and to what classes of works, each system may most beneficially be applied.

Men trained amid purely English associations will settle the question very summarily, by recognising no exceptions to the principle that where private enterprise can possibly have play, the action of Governments is out of place, and they will support their views by many bright examples of what the one force has done, and many dark ones of what the other has failed to do. But the question does not admit of being reduced to purely English equivalents, and for simple reasons. When a community is formed of one race, moved by one spirit, governed by one law, living under customs known to all alike, being, in a word, morally, socially and politically homogenous in its structure, there probably the best course the executive Government can pursue is, to exercise the least possible interference with the play of private enterprise, and to content itself with removing obstacles from its path.

as they present themselves, and so helping it cheerily on its course. Materially different however are the conditions in a society utterly heterogenous in all its constituent parts, incapable of combination, suspicious of interference, full of elements of disturbance and impatient of change, though change be improvement. There the governing authority cannot be content only to reign, but it must also govern actively even within the domain of private enterprise. A far more careful and constant interference in all details is called for, by reason of the far greater range of differences within the community, and the multiplied risks of dangerous collisions thereby created. England may fairly be taken as the type of those communities, in which the best policy of the Government is to interfere only to facilitate; India, of those in which Government must interfere not only to facilitate but to protect, to see that the strong do not injure the weak, that the enlightened do not over-reach the ignorant, that the vigorous energy and impulsive force of the West do not utterly override the passive spirit of the East.

From these considerations, which it is needless to amplify, we get a glimpse of a guiding principle in classifying Public Works on the basis of the facility with which they may be entrusted to private agency. That facility seems to us to be in direct proportion to their non-interference with the interests, customs, feelings and prejudices of the native community which will be affected by them. It is not to be supposed that such interference is regarded by us as a bar to the use of the associative principle, but only that its extent determines and regulates the degree in which the Government is bound to exercise its controlling power.

Our meaning will perhaps be made most clear, by applying the above to special instances. Heretofore private enterprise in Public Works has been limited in its operation, exclusively almost, to the carrying trade of the country, as represented by Railway Companies. Acting simply as public carriers these associations have the most limited possible relations with the native community, and so far as it is concerned they call for a minimum of Government interference. But Irrigation Companies, commanding the water supplies of large tracts of country, must come directly and most intimately in contact with the native agricultural community on, it may almost be said, every day of the year, and in ways that affect the most cherished interests, customs and feelings of the people. There is therefore only the faintest possible analogy between the positions of carrying and Irrigating Companies, in their relations to the native community, and while the one can go on with its work satisfactorily with very little supervision on the part

of the State, the other requires that supervision to be minute and constant, to prevent abuses of a law that would lead to truly disastrous results. When private enterprise is freely admitted to deal with the water supplies of India, the clients of the Companies will count by tens of thousands, and on every village community, or on every separate proprietor of the soil within the limits of their operations, there will be no influence so direct, as the conduct of the bodies on whom it will then mainly depend whether there shall be plenty or the reverse throughout the land. The surrender of such influence and powers to private associations embodied only for commercial objects, without the fullest guarantees against their abuse, would be an act from which little else than evil could be anticipated.

It is farther to be observed that in whatever form a grant of water be given, whether it is of a running stream or of the drainage waters of a tract of country collected in large volumes in tanks or artificial lakes, such grant inevitably assumes the character of a strict monopoly. Physical conditions mainly determine this, as there is ordinarily but one *best* line or locality for the works, and the Company possessing that would defy competition, and no second Company would be likely to find encouragement to occupy ground occupied before. Thus therefore, in sanctioning practical monopolies of an article of prime necessity to the cultivator, the State cannot in justice neglect to guard them by a constant and careful supervision.

Considering then the intimate and delicate relations that must exist between those who hold command of waters to be used for irrigation and those who consume the same, it becomes a fair question for discussion, whether it is right to entrust such a charge to commercial associations at all. To shew the bearings of this question, it is necessary to give some details illustrating the existing condition of the Irrigation System of India.

Hitherto all works forming it have been executed solely by the State, and although the want of any definite and satisfactory legislation settling rights in water has been often felt, the administrative powers of officers in charge of the works have been applied to obviate practical difficulties as they presented themselves. These powers are, however, arbitrary in their nature and unquestionably illegal in their applications. They have been used simply because no other means of extending irrigation existed, but it would be absurd to suppose that they have not frequently been objectionable and sometimes oppressive. If this has been so with officers who had no other motive than their public duty to influence them, it is no scandal of Companies to say that matters would not mend in their hands, and it would in truth be very unwise to entrust them with any powers of the kind,

the relation between their exercise and the dividends of the shareholders being much too direct. Yet unless the Government will move in legislation, and prepare the way for the free exercise of private agency and the use of private capital, powers so dangerous must be used, and private rights must constantly be invaded, or the whole machinery will come to a stand still. As things now stand, it is impossible for the proprietors of any village, between which and the sources of supply of water for Irrigation another village intervenes, to bring their water course across that village in any legal way except by consent, and that is invariably refused. Such cases will necessarily be very numerous in any great development of Irrigation. The channels must be bounded by a comparatively small number of villages, but *legally*, unless the Law be strained very powerfully indeed, these now form a perfectly impassable barrier to all lying beyond them on either side. Hence then this dilemma arises, that either Companies must be content to draw their revenues only from lands communicating directly with the reservoirs, which is equivalent to saying that Companies are impossible, or Government must legalise the right of one village to a passage across the lands of another, on reasonable and equitable terms. This is the fundamental necessity of a healthy irrigation system, and, as yet at any rate, no step has been taken towards securing it for that of India. Its establishment involves an obligation to provide for many others connected with and dependent on it, but they are subordinate in importance and follow naturally in its wake. It is not, we believe, too much to assert, that on the determination of Government to grant or withhold this claim of private individuals to demand a passage across the lands of others, turns the whole question of the practicability of employing with safety private agency and capital in great schemes of Irrigation. The same right, which is now exercised legally by Government for occupying land on accounts of roads or railways or canals, must become possible to poor Peer Khan or Kulloo, proprietors of twenty beegas of irrigable soil shut off by their unaccommodating neighbours' land from tank or canal, else are Irrigation Companies a delusion, or the inevitable source of arbitrary and high-banded invasion of private rights of property, and hence of deep and bitter irritation among the sufferers. That the process will be popular at best is not at all likely. We would be sorry to have our soul burdened with all the bad language that has rolled from the mouths of English squires, when railway speculators have run their thrice accursed lines through their parks or under their drawing-room windows. Still, though unpopular, means have been found to make these invasions of private property possible, even in the stronghold of vested rights, and

like means must be found here, and no doubt will be found, so soon as they are wanted in earnest.

• Assuming then that efficient legislative provision is made for placing on a healthy basis the relations of Companies to individuals affected by their operations, and the rights of proprietors of lands that can benefit by the works, we see no objections of serious importance to the free introduction of private agency and capital in the execution of irrigation projects. With adequate powers for supervision vested in the Government, the influence of such agency and capital is likely to open a new chapter in the history of agricultural progress, and to ensure that progress being uniform and extensive. But till the provision now contemplated has been made, we would anxiously deprecate the establishment of Companies in this field, as premature and certain to be mischievous. The decision therefore clearly rests in the proceedings of the Government, and should it see fit to legislate at once, there need be no objectionable delay in securing to the country all the advantages that a sufficient supply of capital for irrigation promises to secure.

Private Companies being established, there are three interests in the waters available for employment in irrigation throughout the country that require consideration, and a few words concerning each may probably be useful. The interests referred to are, 1st, that of the State; 2nd, that of the People; and 3rd, that of the Commercial Associations to be formed under the authority of the State.

The interest of the State in what, for facility of reference, may be spoken of as the public waters (meaning those to which no private rights of any kind have ever been asserted) is one of the highest importance, and of very large pecuniary amount. The right to levy a larger land revenue from irrigated than from unirrigated land is now, and ever has been, one of the elementary conditions of the fiscal system of the country, and whatever local differences may exist in the revenue details of the various parts of the Empire, this right will be found pervading all. In amount it is of course very variable, but always of great influence on the resources of the State. Of such influence, that it would be an inconceivable fatuity to neglect an adequate provision for its continuance, were the Government to delegate the duty (hitherto executed by its own agents) of utilizing the public waters, to private associations. Viewing the State as the administrator of a vast territory for the benefit of its inhabitants, it can no more alienate with propriety one of its most ancient and universally recognised sources of wealth and therefore of capacity for good, than it can abandon its primary function of securing life, property, and happiness to the people it governs.

These results are indissolubly connected with the Revenue, and development of the latter means their development. We would therefore repudiate peremptorily all those extravagant claims that from time to time have been advanced on behalf of Irrigation Companies, and which proceed on the assumption that Government makes no further contribution towards their schemes than it does towards those of Railway Companies, and that therefore the whole profits obtained by irrigation should be appropriated to those who supply the capital for the execution of the necessary works. The Government holds the public waters in trust for the community, it is bound to administer them in the interest of the community, and if it is considered expedient to do so through private associations, the State is farther bound, in granting to such associations the supplies of water requisite to make their schemes profitable, to take care that the community, which has the highest possible interest in the due improvement of the resources available for good Government, is not damaged by any alienation of these greater than is a fair equivalent for the money and agency supplied. In a few words, the State brings its contributions of water; the private Companies theirs of capital; each is essential to the other and each is to be granted to the other on just and reasonable terms. As the trustees of a property founding in mineral wealth would secure the interests of the proprietor, by exacting from any Company to which the right of opening mines was granted, a sufficient legality, so must the Government exact, in the interest of the country, an adequate share in the profits which the use of the public waters will assuredly return.

In the various papers circulated by the agents of embryo Irrigation schemes, the relation of the Government to the public waters has been so entirely ignored, and the members of some of the Governments themselves seem to have such misty conceptions of the true nature of this relation and the obligations it imposes, that we trust the foregoing remarks will not be out of place, and that we now run no risk of seeing enormous alienations of public resources made, with no other prospect of compensation for them, than could at any time be secured by Government directly, at no higher cost than the opening of an Irrigation Loan at 5 per cent.

As will be gathered from the foregoing, we regard the interest of the community in what we have termed the public waters as virtually identical with that of the State. Were they largely utilised under a system of private agency, the people might justly claim to have their charges or water-rates made as low as possible, to have the utmost freedom secured to the circulation

of the waters that might be consistent with the rights of property, to have Tribunals competent to decide disputes as they arose, and to have, in a word, a complete and efficient mechanism, fiscal, legislative and constructive, calculated to insure for them the full and fair enjoyment of the blessing which Providence has so abundantly provided for them. It will doubtless frequently happen that the inclusion of certain sources of supply among public waters, may raise questions regarding private and prescriptive rights in them. Wherever such rights can be traced, it will be a wise policy to deal with them in a liberal and generous spirit, maintaining them where their maintenance is not inconsistent with the general interest, and compensating for them where their suppression may be a necessity. No grasping spirit should be tolerated, and wherever native communities have shewn the disposition to utilise the waters of the district for themselves, their rights of usage should meet ready recognition and receive all reasonable encouragement.

Questions regarding what may be called the natural rights of inhabitants of districts, will inevitably grow out of the grants of the waters of these districts to private Companies. The claim of proprietors of land bordering on rivers and capable of irrigation from them, to fair relative shares of the waters, the claims of communities or individuals that cannot irrigate at all, but are dependent on the waters for supplies for domestic or other purposes, the claims of individuals who have used or may desire to use the motive power supplied by running streams within or contiguous to their properties, rights of navigation, the growth, it may be, of ages of usage, with many others of a like kind, are all points as yet utterly unprovided for, though evidently of no mean importance to those whom they affect. They are all no doubt capable of equitable solution, but their solution should precede the introduction of different and, in some respects, conflicting interests among them. Are Companies to be allowed to regulate their operations solely by remunerative considerations? If the country, on one side of a great river presents all the conditions of a profitable speculation, a considerable population, a fertile soil, few Engineering difficulties and the like, is a Company to be free to carry through this tract all the water of the river on which Government has granted it authority to operate? Is the natural right of the less favoured population on the opposite bank, where men are fewer and nature less kind, to be ignored, and the region left to an eternal depression? If not, what limits may fairly be prescribed, and how may the natural rights of the river-bordering community be best reconciled with the interests of the private Companies? We believe that, in every instance in which a grant of public waters is made, the manner in

which the neighbouring community will be affected by it should be an essential preliminary enquiry by the State, and that the terms of the grant should carefully protect all the natural rights that can be fairly established. The details must evidently depend on the special circumstances of each case, but the principle is of universal application, and cannot safely or wisely be neglected.

The last of the interests concerned in the waters is that of the private Companies. Their position is simply that of an agency selected by the State, as the most convenient means of utilizing one branch of the public property, and remunerated for their work by a guaranteed interest on the capital they invest, or a share in the profits of the sale of the waters granted to them, or in other ways mutually agreed upon. Their concern is solely with the best means of disposing of the water they supply to the community. They have, or rather ought to have, no other relations to the latter than to give, as cheaply and conveniently as possible, the means of irrigation it wants, and the less they are mixed up with any other matters the better for all parties concerned. It would therefore be most expedient that the rule of separating the price of water from the additional amount of land revenue levied by the State on irrigated land, which prevails locally, should be made universal, as the enforcement of such a rule would greatly simplify the action of private Companies, and keep their dealings with the cultivators quite apart from those of the State with the same. Where this is done, no questions between the State and the Companies concerning the distribution of a mixed charge partly for water, partly for revenue, can arise. As already mentioned the Companies must, by force of circumstances, be virtual monopolists, and their charges must always be subject to regulation by the State, but such regulation would affect only the water-rates, while the land revenue from irrigated soil would be dealt with quite independently. As a simple question of truthful and orderly management this separation is also earnestly to be urged. Where it does not exist, the most hopeless obscurity hangs over all questions of returns from works of irrigation. The authorities in the Public Works and Revenue Departments contend "à l'outrance" for their respective shares of the apparent results, and it is quite impossible to decide between them. When both are State Departments this difficulty may not practically be of any excessive importance, but it is otherwise when one of them merges in a private commercial association seeking, rightly and naturally, the largest returns it can obtain. It clearly becomes then of the highest moment that all sources of possible doubt or dispute should be removed, by the

utmost simplification being made in the dealings and records of the Companies, and public departments related to them. The primary step towards this is, we conceive, to separate price of water from land tax, and to limit the interest of the Companies to the former exclusively.

Nor can it be a matter of any real difficulty to effect this separation on a just and equitable basis, in localities where hitherto the two have been compounded. When a considerable expenditure of capital is necessary to make the waters of any district available for its irrigation, the fair charge for supplying them to consumers is a matter of calculation, which the agents of the Company could readily make, and those of Government not less readily check. What further impost might be permissible under the established law or custom of the locality, would be made directly, by the State in right of its recognised claim to enhanced land revenue from irrigated soil. The water-rate once fixed should not be liable to alteration, excepting under the sanction of Government, and this sanction should only be given, when it was perfectly clear that the value of the water had truly risen, in consequence of the increased spread of irrigated culture, and the consequently increased demand for the article.

The interest of Companies in the public waters, originating in the will of the State, must be terminable by the same at periods and under conditions mutually agreed upon. No grants virtually perpetual should ever be made, but the periods should be determined, by experience of the time required for the full development of the remunerative capabilities of works of Irrigation. Local specialities must greatly influence decisions on this point, but we believe that, as a general rule, likely to embrace almost all cases, it may be held that for works dependent for their profits on water-rates alone; and therefore on the gradual spread of irrigation among the community, no period less than 25 years would be sufficient, and none greater than 40 years should be allowed.

Much discussion has arisen on the expediency of the State guaranteeing to Companies a minimum interest on their capital. The objections to it are patent enough, but they seem to us to be all over-borne by the facts that, 1st, it seems to be a fixed conviction that the Government will not provide capital for public works exclusively, by adding to its own debts; 2d, that such capital is, however, an urgent necessity and crying want for the country; 3d, that, Government failing to furnish it, it can be obtained only through the agency of private Companies; and 4th, that such Companies will invest no money in Indian schemes without a guarantee from the State, and therefore if their money is wanted this condition must be accepted as the

only possible basis of a successful negotiation. There is the less objection to guarantees on remunerative works, since they entail no permanent strain on the resources of the State, but rather an ultimate extension of them, and the direct benefits to the native community are so tangible and so generally accessible, that the withdrawal of the amount of interest from the country would be abundantly compensated by the effects of the investment of the capital on the common good. We therefore hold that, whatever inconveniences may be connected with the system of guarantees, they sink into utter insignificance in contrast with the stagnation which want of capital entails, or the deplorable losses that result from an intermittent progress of Public Works, such as the experience of the past few years has familiarised us with.

A minimum rate of interest on capital being guaranteed, the price of water entirely separated from the land revenue of the State, and the regulating power of the Government, as concerns the rates of charge, being recognised, we believe that in addition to the first advantage which is certain, the Companies might farther be allowed the entire increase of profits from the sale of water during the currency of their grants—a source of increased dividends which would necessarily be variable and contingent on local circumstances, but which, in all well considered projects of irrigation, is likely to be considerable. From these two sources therefore, the assured guarantee and the contingent revenue from water-rates, would the resources of the Companies be derived, and their speculations made safe and fair investments at their lowest valuation and most profitable ones at their highest, the degree in each instance being mainly dependent on the judgment with which fields for operations might be selected, and the skill and economy with which the works might be executed: minor advantages such as the revenue, from navigation where practicable, from motive power, and from all miscellaneous sources, might also be unreservedly given to the Companies, and in brief, the grant of the water should be held to carry with it the power to make whatever profitable use thereof the Companies could. We need scarcely indicate that in all this the interest of the State is secured, ~~not~~ merely by the general effect of improvement in the condition of the people, but specially by the fact that on every acre of dry cultivation converted by the operations of the Companies into wet, the land revenue due to the latter becomes available for public purposes.

Such being the provisions for the interests of the Companies, we have now to note their obligations. Among these one of the most important and fundamental is the acceptance of the controlling authority of the State, to be exercised through its inspecting

officers. This seems to us quite as indispensable a condition on the part of the Government, as we have formerly stated that of a minimum guarantee to be on the part of the Companies. Its influence must extend to the agents as well as to the operations of the Companies, and it must be complete as concerns both. The consequences of default either among the men employed or the works executed, are far too intimately connected with the peace as well as the prosperity of the country, for the Government to be justified in contenting itself with anything less than an absolute control, as perfect as though the agency and works were its own. The most effective form in which control of the agency could be exercised would be, we believe, by securing to the State the right of dismissal over all the functionaries of the Companies employed in India. The right of appointment might in this case safely, as for many considerations it could most conveniently, rest with the Companies, but when men are dealing constantly with such very delicate matters as are unavoidably interwoven with the operations of Irrigation Companies, and affecting thereby such masses of the people and public, as well as personal interests on so large a scale, the State must have power summarily to prevent the evil results of individual indiscretion or worse, without being compelled to argue the merits of cases with distant directors and await their decisions on them. In every agreement therefore with an Irrigation Company, a provision should be made that the Government shall have power to dismiss any person in the Company's employ, on its own conviction of the necessity for the step. The general control of the State will otherwise affect all the operations of the Company, be they financial or constructive, and will insure to the community the execution of the works in the most efficient style and with all regard to the public convenience. It must supervise expenditure, insure plentiful means of cross communication, take care that sanitary considerations are not neglected, and in all disputed points its decisions must be final.

It would be quite out of place to enter here on details of what Irrigation Companies must be bound to perform, to make their works as nearly as possible unimixed benefits to the community, as well as sources of profits to themselves. These are technical matters which no engineers in the world have had such opportunities of studying, on the largest scale or in greater variety both of good and evil, as the Engineers of the Indian Government. Their regulation may, therefore, be left with confidence to the agents of that Government who, compelled, as they ought to be, to act with a discreet liberality and in a spirit of hearty co-operation with the agents of the Companies, should secure the healthy development of an enlarged irrigation system throughout the empire.

There are various other matters of detail, such as provisions against the formation of mere share market schemes, for disposal of the works at termination of grants, for giving possession of the land required for the works, and others which need not occupy time and space here, as they will naturally be disposed of either according to precedent or with such modifications as actual experience has suggested. We are less concerned now with matters of this nature than with those main and more prominent features of the subject, errors regarding which would pervade the whole, and be dangerous to all the interests connected with it. To lay down in all its fullness a complete scheme for the regulation of Joint Stock Companies for Irrigation, is at present an impossible task, and must continue so till the fundamental questions to which we have referred have been authoritatively settled. It may be useful to re-capitulate these here, so as to bring them under view at once. They are:

1st. To secure to the inhabitants of irrigated districts a legal right of passage for their water courses on fair and equitable terms.

2nd. To secure for the same, due consideration for all natural or acquired rights, in the waters of districts open to irrigation by private enterprise.

3rd. To separate definitively in such districts the price of water from the Government demand on the land when supplied with means of Irrigation.

4th. This separation made, to insure to the private associations for executing the works, the complete beneficial usage of the waters during the currency of their grants with all returns therefrom, on such conditions in detail as may be agreed upon.

5th. To insure to the State complete control over all the agency and operations of private Companies for irrigation.

We have availed ourselves of the Reviewer's not uncommon privilege, and have delivered our sermon without having once quoted our text. The Madras Irrigation Company is understood to have just received its guarantee of 5 per cent. on one million of capital, but the terms of agreement between it and the Government have not yet become known to us. If they respect the principles indicated in this paper, differences in details are unimportant, and we can wish the Company a hearty god-speed in its work; but if they do not, there is still time for the Government of India to apply such corrections as may be absolutely indispensable to the safe working of the scheme. The Bombay Company is likely to follow, and there are several other competitors for the patronage of the State now in the field. Temporary financial difficulties may possibly bar their progress, but it may be

hoped that the check will be but for a time, as there is certainly no application of capital from which the people, as a great class, will reap such rapid harvests, as from that employed to give their lands the water they want.

When the question has advanced farther, and we have definitive information as to the views of the Home Government regarding terms to be granted to Irrigation Companies, we may perhaps return to the subject.

- ART. X.—1. *Narrative of the Indian Mutinies of 1857, compiled for the Madras Military Mule Orphan Asylum.* Madras. 1858.
2. *Narrative of the Campaign of the Delhi Army*, by Major H. W. NORMAN, Deputy Adjutant General of the Bengal Army. London. W. H. Dalton. 1858.
3. *A Year's Campaigning in India, from March 1857 to March 1858*, by CAPTAIN MEDLEY, Bengal Engineers. London. Thacker & Co.
4. *The Crisis in the Punjab from the 10th of May until the Fall of Delhi.* By FREDERICK COOPER, ESQ., C. S. London. Smith, Elder & Co. 1858.
5. "The Red Pamphlet." *The Mutiny of the Bengal Army, by one who has served under SIR C. NAPIER.* London. Bosworth and Harrison. 1858.
6. *The Defence of Cawnpore by the Troops under the orders of Major General A. Windham, C. B., in November 1857*, by Lieut. Col. JOHN ADYE, C. B., Royal Artillery. London. 1858.
7. *Memorandum of the three passages of the River Ganges at Cawnpore, during the rainy season of 1857, by the Oude Field Force under the Command of the late MAJOR GENERAL SIR HENRY HAVELOCK, K. C. B.*
8. *Papers relative to the Mutinies of the East Indies, presented to both Houses of Parliament by Command of Her Majesty.* London. 1857, 1858.

LORD Clyde has proclaimed that the war is at an end, that, in Oude, the last strong-hold of the enemy, there is not even a vestige of rebellion. This is a consummation which, we believe, no one would eighteen months ago have dared to prognosticate. Sudden, furious, appalling, as was the first rush of the insurrection, we are lost in greater wonder at the speed and completeness of its suppression. Hatching for years, first giving overt signs in January 1857, it had raised, by the following August, in open and rampant rebellion, the whole country between Bengal and the Punjab; a strip of road alone was held and a few isolated posts defended by British troops. On the 1st January 1859, save Tantia Topee and his hunted rabble, not a foe was in the field. The measures and operations by which this issue has been brought to pass, form the subject which we now purpose to discuss.

We do not intend to investigate the cause or origin of the war; whether it was caused by unjust treatment or mismanage-

ment, or over-indulgence of the native army ; whether it sprung from Mussulman, Hindoo, or Russian intrigue ; whether it was the rising of a nation to throw off a foreign yoke, or the attempt of a party to subvert the existing Government, and seize the supreme power for itself. We, at present, desire to examine only the Military elements of the struggle, the arrangements and operations by which the rebellion has been checked and suppressed. These arrangements and operations naturally divide themselves into those of which the responsibility rested with Government, and those involving the character and conduct of its servants ; into the arrangements for reinforcements of troops, and for the protection of posts ; the combinations, dispositions and handling of their troops by the Generals ; the conduct of officers and men in a contest, which has elicited the exercise of military virtue to a degree almost unparalleled.

• We have selected the works which are quoted above, some because they appear to give the best and truest accounts of the operations which they describe, others because they contain statements which we know to be incorrect, or give vent to opinions which we believe to be erroneous. These mistakes we hope to rectify, and to put the facts in their true light. We must also express our regret, that although we are almost inundated with accounts of the operations in the Punjab, at Delhi, in Oude, and the Doab, none of those gallant bands that under Rose, Whitlock, and Roberts, have driven back the wave of rebellion from the South, have yet found champions to chronicle their deeds, second to none which have raised the honor of the British arms to their present glorious height.

In January 1857 the first signs of the coming storm became unmistakably visible. The Government was warned of it, not only by the conduct of the 19th N. I., but by direct intimations from all quarters and from all classes. Their own European officers, native officers of Corps, sepoys, native gentlemen and native princes, had all furnished representatives to point out the impending danger. There was still ample time to prepare for it. The proper measures, under the circumstances, were to secure the Military posts and arsenals, to strengthen the positions occupied by Europeans, to make safe the Artillery, to provide for reinforcements.

The Europeans were thus placed.

3. Infantry Regiments in Burnah.

1. Divided between Fort William and Dum-Dum.

One, at each of the stations of Dnapore, Lucknow, Agra. and Meerut.

3. In the Hills over Umballa.

1. At Jullunder and at Ferozepore, at Meean Meer, Scal-kote and Rawulpindee.

2. At Peshawur—Total 18.

There were also convalescents at Darjeeling and Landour, a dépôt at Chinsurah, veterans and invalids at Chunar, and a Company of the 32nd at Cawnpore. There was one Cavalry Corps at Meerut, and one at Umballa.

Except at Rawulpindee and the Hill Stations, these European Infantry were supported by European Artillery, but there were European Artillery isolated and detached at Benares and Fyzabad, Saugor and Mhow, Umritsur and Mooltan. The native artillery were, the bulk of them, detached with native troops. Our forts and arsenals were Fort William; Chunar and Allahabad on the Ganges; Agra and Delhi in the North West; and in the Punjab, Loodiana, Phillour, Ferozepore, Umritsur, Lahore, Kangra, Mooltan, Attock, and Peshawur. Of these it will be seen from the list above furnished, that Allahabad, Delhi, Loodiana, Phillour, Kangra and Attock, were entirely unprotected; Umritsur and Mooltan contained but a few artillery.

The force in the Punjab was sufficiently large to be comparatively safe; and to enable its ruler to strengthen its position when it should become necessary. The world has rung with the wisdom of the measures by which Sir John Lawrence secured his forts (Mooltan and Umritsur, Attock, Kangra and Phillour) and paralysed the rebel element in the Punjab. But the North West and Bengal were weak, fearfully weak, rendering promptitude and energy absolutely necessary, if it was intended to stave off the coming danger. There was ample time however, to afford strong hopes of success in decisive measures. A ready made opportunity for improving our strategical position existed in the course of the Relief of troops. By extending a Corps Southwards from the Simla Hills, Delhi could be secured with the 60th Rifles. The 52nd left Lucknow in January. They could have been halted at Cawnpore, and quietly employed in securing Allahabad. The 84th might have been sent for long before March to make sure of Fort William. Such, and such like, would have been the measures of a Government cognisant of the coming tempest, but that, at that early period of the crisis, Lord Canning did not believe in its reality, and we are therefore able to give him such credit as may be worth having, for energy and promptitude in acting as he did at a future date, when at last he awoke to the magnitude of the danger.

The troops in Fort William were utterly inadequate to its defence. The utmost they could have done in the event of a mutiny and an attack by the Barrackpore troops, would have

been to concentrate in two or three of the Barracks, and act on the defensive. Gunners there were none. The local authorities did their utmost by doubling the guards, instituting patrols, rousing a spirit of vigilance, and pressing for reinforcements, but it was not until March that the 84th were sent for; it was not until May that the possession of Fort William was secured. Nearly equally important was Allahabad; but not the slightest measure was adopted towards securing it. Eventually, to the influence of Captain Brasyer over his Sikhs, and to it alone, humanly speaking, can the salvation of Allahabad be attributed.

On the 10th of May the mutiny occurred at Meerut; on the 11th of May at Delhi; on the 3rd, the 7th Local Infantry had already mutinied at Lucknow. But it was not till the 16th of May that Government telegraphed to Bombay for the Persian troops, not till the 19th that reinforcements were applied for from England, not till the 18th that the Fusiliers left Madras. From this we may gather that none of the events prior to the outbreak at Delhi had served to shew to the rulers of India, the extent and magnitude of the danger which they would have to encounter, but, now that they had tardily become cognisant of it, the energy of some of their measures could not be surpassed. But these were few. A few additional Companies, sufficient to ensure possession of the gates of Fort William, were thrown in; the Fusiliers and 84th were at once despatched up country. The invalids from Chunar were thrown into Allahabad, and by the beginning of June the 64th, 78th, 35th, and a wing of the 37th reached Calcutta.

Other steps, however, which could not have been adopted too quickly, were not taken till after great delay. The assistance which had been offered by the Ghoorckhas was at first refused, and not accepted till the middle of June. It was not till the 12th June that the Calcutta Volunteer Guards were raised, although their services had been offered in May. It was not till the 14th of June that the native Corps at Barrackpore were disarmed. The king of Oude and his prime minister were arrested on the following day. Lord Elphinstone's proposal to despatch a steamer with the Delhi news, and with application for troops on the 17th May, was rejected. Such were the measures which were adopted at the outset of the rebellion by the Supreme Government. Had they been more promptly decided on and executed they would have earned all praise. But the pith of their wisdom appears to have been wanting. In nearly every step Lord Canning was too late to render it thoroughly effective.

It is a pleasure to turn from Bengal to the Punjab. There

the task was easier; but that detracts not from the merit of its execution. From the first intimation of the outbreak not a moment was lost. The timing of every measure was perfect. The head to plan and the hands to execute were alike equal to the occasion. At Jullunder alone was an exception shewn to this rule. We need hardly relate how the troops at Meean Meer, Ferozepore, and Peshawur, were disarmed; how Lahore and Govindghur, Kangra, Phillour, Attock and Mooltan were secured without a single failure; how the 14th at Jhelum, and the 46th at Sealkote, fighting with a courage and a skill worthy of a better cause, were almost annihilated; how finally the glorious Nicholson, with his flying column, hurled defiance at all obstacles, gained victory after victory, and won for the British interests a sympathy and confidence of which the value was inestimable.

We cannot however quit the Punjab without comment on the proceedings at Ferozepore, on the occasion of the mutiny. The author of the Red Pamphlet, correct as he generally is in his facts, and sound in his judgment, has in this case taken a most erroneous view of the circumstances and operations. The troops at Ferozepore were 2 Companies of European Artillery, with a Light Field Battery, and H. M.'s 61st on the one hand, and on the other the 10th L. C., the 45th, and 57th N. I. The Red Pamphleteer assumed that all that was to be done was to disarm the two native infantry corps, and that this was an easy operation. He forgets that the 10th L. C. was also native, and that there was no reason whatever to count on their assistance, support, or fidelity, one iota more than on that of their infantry brethren. If the mutinies have had one characteristic in their development, it has been the utter futility of trusting to the apparent "staunchness" of any corps, and we conceive that, under such circumstances as existed at Ferozepore, until the native regiments had shewn their real dispositions, it would have been mere folly to disarm one or more of the native corps without disarming all. The Brigadier's reasoning was probably this. Here are three native corps which I must practically assume to be hostile, and whom I must therefore paralyse as I best can. But the security of my arsenal, and the safety of the residents of Ferozepore, must be the primary objects of my measures. What were the measures he adopted? He separated the native corps, and rendered them incapable of combined action; he threw Europeans into the entrenchments of the magazine, retaining the natives there because they were insignificant and powerless where they were, while the strength of their corps was reduced by their absence. The wisdom of the measures was shewn by the event. An attack on the magazine had evidently been preconceived,

scaling ladders were ready; but there was only a part of one regiment, instead of two or perhaps three, who obtained a chance of making the attempt. The Europeans in the entrenchments sufficed to drive off such of the 45th as were outside, to exterminate such as were within. The 61st, free to strike at a divided foe, disarmed the 57th, and had then to deal with only the Cavalry and a part of the 45th. But the 10th still appeared steady; they might be useful, they could be disarmed afterwards as well as there. They were sent in pursuit, and hardly a man of the 45th has escaped. As far as we are able to judge, all the results of the Ferozepore mutiny were due to the measures adopted. Not one was accidental, and these results were that the arsenal was secured, not a resident of Ferozepore lost his life, and of the mutineers, one regiment was disarmed, the other destroyed.

We imagine that the author of the Red Pamphlet has taken his disparaging view of Brigadier Innes' conduct at Ferozepore, from a supposition that he was removed from the command there in consequence of that conduct. He says:

"Had his measures been successful—he would doubtless have been held up as a pattern Brigadier. Unfortunately for himself the regulations led him to failure, and his failure cost him his command. He failed and was summarily removed from the list of Brigadiers."

This is totally wrong. He was not removed for his conduct at the mutiny. Both Sir John Lawrence and Mr. Montgomery recorded officially and privately their sense of his admirable management on that occasion. It was for subsequent events, in consequence of reports that reached him of the proceedings with regard to the disarmed mutineers, that Sir John Lawrence deprived the Brigadier of his command. These reports are now acknowledged to have been *ex parte* and unfounded, but in those days there was no time for enquiry, and Sir John Lawrence may well be justified for acting as he thought best, on such information as reached him. But now when it appears that that information was incorrect, and that the Brigadier's removal was an act of injustice, we trust soon to hear that that officer has received amends as ample as his removal was summary.

We now turn from the ends of the Empire to the North West, where the brunt of the struggle was to be borne. When the mutiny occurred at Meerut, the troops of that station were a European Infantry regiment, one of Cavalry, a troop or a battery of Artillery, against a native Cavalry Corps and three of native Infantry. We need hardly say that no attempt was made to check or to follow up the mutinous regiments; but bad as was the supineness on that occasion, the subsequent proceedings at Meerut were worse. A panic ap-

pears to have seized on all who were in authority. With a force of which a moiety was afterwards found sufficient to thrash such troops as had then reached Delhi, General Hewitt and Brigadier Wilson proceeded to consider themselves in a state of siege, to throw up entrenchments and to protect themselves. They reported that they were defending their position successfully ! against what, or against whom ? They believed themselves to be in extreme peril, and wrote for reinforcements—begged that the 75th might be sent to their assistance, would allow no troops to venture outside their picquets—would scarcely permit any one to come in—and all this while the communication with Umballa was perfectly open, while Captain Grcathed, Mr. Colvin's Aid-de-Camp, was able to ride from Agra to Meerut, either alone, or accompanied by an escort whose absence would have been preferable to their society.

Happily, however, this state of matters was only for a time. Finding that they were not attacked, learning from new arrivals that the Delhi mutineers, far from dreaming of aggressive proceedings, were themselves in great alarm, and were busily occupied throwing up defensive works, the Meerut authorities began to regain their spirits, and their minds to acquire a more healthy tone. A force to operate against Delhi had been formed at Umballa. It consisted of the bulk of the troops of the Sirhind division, and was under the personal command of General Anson. Its route was to be by the right bank of the Jumna. It was anticipated that its presence before Delhi, and an immediate attack, would terminate the struggle there. And to prevent the escape of the mutineers across the Jumna to the East, as well as to protect Meerut, Brigadier Wilson, with the Meerut Brigade, was directed to advance to Ghazee-ood-deen Nuggur. This is a village where the Meerut and Delhi road crosses the Hindon, a stream which runs West of Meerut, between it and Delhi, and falls into the Jumna a short distance below Delhi. Immediately however on arriving at Ghazee-ood-deen Nuggur, an attack was made on Wilson's camp by the Delhi rebels who had arrived that very day, with the intention of throwing up works to prevent the passage of the bridge there. But they were too late. The fight that ensued was sharp, but never doubtful. The manœuvres were the simple ones that have been the rule in nearly every action in the war. The enemy made up their minds that the British could and would come in only one direction. Tombs crossed the stream and turned the enemy's left flank, Scott's battery and the rifles charged in front, the enemy fled, and the Carabineers pursued. The mutineers essayed to molest them a second time, but the first signs of the deployment into line sent them to the right about. They fled so fast that they could not be overtaken, nor their guns captured.

The fact, however, of the enemy possessing sufficient audacity to take the initiative and attack Wilson, pointed out to General Barnard (who was now in command of the main column marching from Umballa) that the capture of Delhi would not be so easy an operation as had been originally supposed. His force would require to be increased. He therefore directed Wilson to join him. His route would be to cross the Hindon at his camp at Ghazee-ood-deen Nuggur, to make a flank march to the North, to the bridge over the Jumna at Bhagput. To help this march Barnard's force advanced some miles to the Delhi side of Bhagput. The result was successful. Wilson's column was unmolested, and the junction was effected.

With the united force Barnard advanced on Delhi on the 8th of June. The mutincers were entrenched on the road at Badlee-Kc-Serai. The arrangements were as before. Brigadier Grant was directed to turn the enemy's left with some artillery and cavalry, and the main body was to charge in front. But as the flanking party on the right was not making its appearance, and the British were suffering heavily from the cannonade, the 75th were ordered to charge the enemy unsupported. Nobly and brilliantly was the order obeyed, and with complete success. No sooner also were the guns taken, and the enemy beaten, than Grant's party to the right were seen. They had gone too far to the enemy's rear, but this was now a happy mistake. The discomfiture was complete, the slaughter severe.

But the work for the day was not over; the battle had been won, but a position had to be taken up. This position was to be the ridge between the cantonments and the city, and it was known to be held in force by the enemy. To reach the ridge the right would have to pass through the Subzee Mundee, the left through the old Sepoy's lines of the cantonment. Opposite the centre were the enemy's batteries on the ridge, near the flagstaff and Hindoo Rao's house. The advance was made, the enemy fought the ground; they might have fought it for weeks, covered as it was with gardens, and buildings, and intersected by the canal. But they could not face fire at close quarters. The British loss was great—nearly 7 per cent. of the force, but the ridge was taken, and the position secured, a position which remained unaltered for upwards of three months, as the basis of the operations before Delhi.

The force now present did not consist of more than 2,500 of all ranks, and as this was manifestly too weak to undertake the capture by the usual siege operations, while the General was incessantly being urged "to take Delhi," it was decided to attempt a "coup de main." The arrangements were all made, and the troops were all drawn up for the assault on the early morn-

ing of the 13th of June, when the mistake of a superior officer forced the plan to be abandoned. As Major Norman says.

"There are few who do not now feel that the accident which hindered this attempt was one of those happy interpositions on our behalf of which we had such numbers to be thankful for. Defeat or even a partial success would have been ruin, and complete success would not have achieved for us the results subsequently obtained, nor, as far as we can see, would it have prevented a single massacre, most of which indeed had already taken place."

With the abandonment of this attempt at "coup de main" came the perception of the impossibility of capturing Delhi under existing circumstances, and without a very large increase to the besieging force. It was determined quietly to maintain and strengthen the position, extending and advancing it when reinforcements should arrive.

While Lord Canning at Calcutta was providing for the present security of Bengal, and for the future security of Hindostan, while Sir John Lawrence was turning the Punjab into a source of strength; and while Barnard and Wilson were setting themselves in array against Delhi, let us glance at what was going on further South, at Agra and Gwalior, Oude and Cawnpore, Allahabad and Benares.

The importance of Agra lay not only in its being the seat of Government of the North West Provinces, and in its fort and strategical position, but also, and perhaps to a greater extent, in its proximity to the great native independent States, to Scindiah's and Holkar's dominions, and to Rajpootana. Within a few marches lay Gwalior, Scindiah's capital, garrisoned by Poorbeah troops. The fidelity of these could never be relied on, and they very soon followed the example of the rest of the sepoy army, but their desertion was of second-rate importance. The absorbing point of interest and anxiety, the real object of attention was Scindiah's attitude. On the part he might choose to play lay the chance of the alliance or enmity of the native States. By his decision it was known that they would abide. With his friendship secured to us, the British could rely on, at any rate, the neutrality of Holkar and the Rajpoot Chiefs. With Scindiah declared against us, their standards must have become hostile by the mere force of Asiatic self-interest, and Hyderabad would have followed. How thoroughly and steadily Scindiah did cast in his lot with us, need not be told, but we doubt whether the influences which resulted in this alliance are so broadly or clearly known and recognised as they should be. It was by no innate wisdom, by no clear sighted appreciation of the certainty of the ultimate results, far less by any considerations of "right or wrong,"

that Scindiah, a lad in years, weak in intellect, sensual and hot-headed, a thorough oriental, was impelled to the line of conduct he adopted. He was in fact acting under an influence akin to mesmerism. He was held in the mental grasp of a master in the knowledge of human nature, in the control of Asiatic minds. Major Macpherson had irresistibly imbued him with feelings of personal respect, gratitude, fear and attachment. He had confirmed in the post of his chief minister and adviser one of the few large-minded men that are to be found amongst the natives of India. Dinkur Rao at Gwalior, Salar Jung at Hyderabad; how many of their countrymen may they not be held worthy to redeem! Major Macpherson with Dinkur Rao's support and assistance, at Gwalior and at Agra after the British had to quit Gwalior, held Scindiah firm to the instincts which he had been ever studying to implant in his mind. He held before him the power of the British Empire, the wisdom of its rule, its conduct to him when in its power, and the salient points of the crisis and its causes. By quiet suggestions and promptings, he led him, apparently to originate, practically to adopt, the measures and procedure which he had himself lined out. He worked on his martial pride to resist the encroachments and threats of the mutineers, to organize a force of hereditary and national followers, and by their aid to counteract and oppose the proceedings to which they seemed to be inclined; and he lastly incited him to think of the position which would follow, if he took the lead and gave the example to the native princes of India of identifying himself with the British cause. By this policy, and by minor measures which induced the men of the mutinous contingent to remain at Gwalior in hopes of proceeding under the banner of Scindiah or some other native Chief against Agra or Delhi, Major Macpherson kept Scindiah a faithful ally to the British interests, and held idling, in the Gwalior territories, a force, which, in the earlier days of the dark struggle, might, if active in the field, have produced incalculable disasters; kept them there until the tide of war had turned, and they could make their first essay in arms only to be routed irretrievably at Cawnpore.

Scindiah's passive alliance thus induced friendly, or at least neutral, conduct on the part of the Indore and Rajpootana Chiefs, and enabled Colonel Davidson and Salar Jung to prevent an outbreak at Hyderabad. The weight of hostility thus kept under is incalculable: but almost, if not quite, as important was the part to be taken by Oude, the latest acquisition of the British Empire in the East. In the whole of this vast province there was but one European Corps; all the native regiments in the district mutinied as a matter of course; the population were im-

pressed with a strong sense of the under-hand style of the coup d'etat with which the country had been absorbed; the talookdars, the chiefs of clans, and men of influence, were groaning under the results of the newly devised revenue arrangements, but, with all these adverse influences in operation, the Lucknow Residency was not besieged until July, until a month after the troops in the province had risen in mutiny. That the evil day was so long deferred must have had a cause: the cause was Sir Henry Lawrence. Appointed Chief Commissioner only in March 1857, he arrived at Lucknow at a time when the native population felt nought but bitterness towards the British, when Fuzl Ali was even then forming the first rallying point for a rebel force, when to his prescient mind the coming storm was no longer doubtful. He arrived to find the civil department "a house divided against itself," the military, military only in name, thoroughly disorganised and mischievous from injudicious management.

His measures were from the first electrical. They were stamped as emanating from a Christian, a statesman and a soldier. At the very first Durbar, the truth and honor, the justice and the tenderness, that beamed in that noble countenance, were unmistakably recognised. The fame of the bright future that was dawning went through all the land, and a miraculous reaction ensued. Up to the very hour that the mutineers closed in round Lucknow, the fullest and freest help was being given to the little garrison in all their wants.

One of Sir Henry's first proceedings was to thoroughly examine the military positions and arrangements of Lucknow. Their falsity was palpable. No delay occurred in altering the distribution of the troops. He searched for and decided on the Mutchi Bhawn as the strongest position, natural, and ready to hand, to serve as the key and citadel of Lucknow. Its possession was a tower of strength from prestige alone. The proverb ran "who holds the 'Mutchi Bhawn, holds Lucknow," and the native mind bows humbly to a proverb. He directed the immediate repair of the old fort and its preparation for storing the powder, and for use as the arsenal. He called into council the two best soldiers in Oude, Sam Fisher and George Hardinge. The 7th O. L. I. became mutinous. He punished them effectually. He wrote to Government urging them to send for reinforcements and to secure Allahabad. He wrote to Sir H. Wheeler to entrench himself at Cawnpore.

We will briefly describe, in order, the steps that were taken for Lucknow itself. Immediately on hearing of the news of Delhi on the 14th and 15th May, measures were adopted for the clearance of roads to the Residency and Mutchi Bhawn, and for the lodging of

the Europeans in the cantonments. By the evening of the 16th these preparations were effected, and on the following morning, a picked company of the 13th, who were believed to be and who proved faithful, occupied the Mutchi Bhawn; the bulk of the Europeans moved to the cantonments; the rest were posted at the Residency. A few days later as more room was cleared out, Europeans were thrown into the Mutchi Bhawn, and the 13th were sent to secure the Dowlut Khana which was still the arsenal. As the clearance of the Mutchi Bhawn progressed, as the walls were repaired and roofs covered in, provisions were stored, the powder was sent in from the Kuddum Russool, the European force was increased, and ordnance stores were removed to it from the Dowlut Khana. The Residency entrenchments were also begun, excavations for magazines were commenced, and both at the Residency and at the Mutchi Bhawn, additional buildings, the property of natives, were purchased and included in the positions. Such like were the measures adopted up to the outbreak of the 30th of May. The occupation of the Mutchi Bhawn was pre-eminently the measure that preserved the peace and tranquillity of the city, that kept the dangerous classes in subjection, and that enabled Sir Henry to detach a party of the 32nd and of natives, on the 21st of May, to Cawnpore, and to patrol the Grand Trunk Road. Not content with providing for the safety of Lucknow, and with endeavoring to assist Sir Hugh Wheeler, he sent Hardinge with his Cavalry to strengthen Allahabad. He detached a force under Hayes to patrol the Grand Trunk Road; and another under Burmester and Staples to make a demonstration towards Futteghur.

On the 30th of May the troops mutinied. Sir Henry's arrangements again resulted in success. The mutineers were driven out of the cantonments, and turned away from the city. An attempt at a rising there was speedily suppressed. The mutiny at Lucknow was the signal for a like explosion at Cawnpore, and throughout Oude. The prospect of a siege became now more imminent. The Mutchi Bhawn was become secure against a mob; the operations there were therefore confined to sanitary measures, whilst the defences of the Residency were pushed on apace. As fast as the completion of the arrangements permitted, the powder, the ordnance stores, the provisions, and the Treasure were removed from the Mutchi Bhawn to the Residency, and a ruthless demolition was commenced of the houses and huts which bordered on the position which had been marked out. The Sikhs in the various corps were formed into detached companies; the trusty men of corps were marked and retained, the rest were invited to take a holiday. The restless spirits of the city were added to the Police, thus coming under surveillance, and also

obtaining legitimate scope for the exercise of their energies. Pensioners were called in to rally round the British Standard, and the Oude artillery men, pensioners of the English Government, flocked in under old Furzund Alee to man the guns of the Residency. James, Martin, and Shurf-ood-Dowla were indefatigable in their exertions to collect supplies, and provisions were stored which would have lasted the Residency troops for eight months. On the 29th of June the advanced guard of the enemy were reported by Gubbins to be at Chinhut. Early on the 30th the small party that went out to meet them, found themselves face to face with the whole mutinous force of Oude. They were deserted by their native gunners; a retreat ensued. The two positions still held by the British were surrounded and separated, and the famous Siege commenced.

We cannot quit this subject without reference to two points; one is the false colouring and erroneous motive given by Mr. Gubbins to many of Sir Henry's measures, and actions; the other is the question of the propriety, in a military and strategical light, of maintaining a position at Lucknow at all.

There are several points in which Sir Henry Lawrence comes under Mr. Gubbins' condemnation. He accuses him of dilatoriness, and of trusting to conciliation, in lieu of action, for the defence of Lucknow. "On the 15th of May," he says, "we earnestly urged upon him the necessity of moving up a party of Europeans and Artillery to the Residency. To this measure we found Sir Henry Lawrence much opposed. It would, he thought, alarm the sepoys, and provoke the dreaded outbreak. He clung still to the hope of conciliating them, and urged the necessity of treating them with confidence."

We believe that Sir Henry's real opinion of the case was this. The movement of Europeans to the Residency must not be isolated; it must be one of the series of combinations by which the Cantonments, the Bridges, the Residency, and the Mutchi Bhawn are to be secured. They cannot be done till to-morrow night. The sepoys must be kept quiet till then. Time is everything. Defer the outbreak, defer the siege, at all risks—cajole the sepoys if we can. We know for a fact that Sir Henry Lawrence felt thoroughly assured of the impending siege; that he took the utmost pains to impress the same conviction on his officers; that he held before him as a guide to his actions, the impossibility of any reinforcements arriving before the middle of August; that he therefore made all other objects secondary to this great one of having the Residency defensible, when the siege should commence. Mr. Gubbins again says;—"Sir Henry Lawrence still clung to the hope of averting the threatening storm by conciliation." "There was among thinking men in the

'garrison at the time a growing opinion that the time when a 'conciliatory policy might have proved successful, had gone by.'

• We are at a loss to distinguish whether Mr. Gubbins does not discriminate between cajolery and conciliation, between a hope to avert, and a desire to defer; or whether he was so very sanguine as to be ready to dispense with all diplomatic measures, to rely on force alone for securing the time which was essential to the completion of the entrenchments, and to trust only to the bayonets of the British when the crisis should arrive.

Mr. Gubbins is next peculiarly at fault with respect to the utility and purpose of holding the Mutchi Bhawn. His own views, and those he attributes to Sir Henry Lawrence, are described in the following passages:—

"Though intending to hold the Residency also, he (Sir H. Lawrence) had all along regarded the Mutchi Bhawn as his place of strength. Now therefore on the 8th of June he proposed to move thither all the Europeans and their families. The measure being much opposed, a council of war was called. The two most important questions were put whether both posts, *i. e.* the Mutchi Bhawn and the Residency should be held, or one only, and secondly whether the ladies should be sent away to Nepaul or down the Ganges." "Both Captain Fulton and Lieut. Anderson, strongly urged the abandonment of the Mutchi Bhawn, and the concentration of our force at the Residency." Afterwards "I understood that Sir Henry's faith in the Mutchi Bhawn had been much shaken, and though he could not decide on abandoning it, still he had resolved on making the last stand at the Residency, and abandoning the Mutchi Bhawn when it was no longer tenable."

"Still very considerable stores were left in the Mutchi Bhawn, and sometimes guns were ordered back there, and the works at the Mutchi Bhawn were continued actively. So that Sir Henry evidently clung" (insidious word) "to the hope of retaining the Mutchi Bhawn also." "No sooner were we invested than it was discovered that the maintenance of the separate position of the Mutchi Bhawn had been a mistake, the garrison, now further weakened by their losses at Chinhut, was not strong enough to defend the extended Residency position, between which and the force all communication by letter was now cut off."

Now the whole matter seems to us perfectly simple when divested of the sombre colouring with which facts appear before Mr. Gubbins' mental vision, clouded with the belief that Sir Henry's intellect had succumbed to the crisis. We are perfectly ready to make every allowance for Mr. Gubbins' positions, for the bias which his mind must have received from his want of unanimity with Sir Henry Lawrence, and from his eventual supersession by Major Banks by Sir Henry's directions. But he has given full vent to his opinions of all the measures adopted during the crisis at Lucknow, and we consider it our duty to elicit the

truth without partiality, and to expose such of his statements as we believe to be misrepresentations. This matter then as already stated, appears to us perfectly simple. When the mutinies first occurred, the only defensible post in Lucknow was the Mutchi Bhawn. It was essential to secure this, and it was secured. On the 8th of June, and so long as it was the strongest post, it was undoubtedly the position in which to place all who required protection in case of an attack. But not till immediately before the siege actually commenced, was there any attempt made to strengthen the Mutchi Bhawn against Artillery, or to increase its strength beyond what was requisite for standing a surprise or the attack of a rabble. The Residency, on the other hand, was at first perfectly indefensible. It consisted chiefly of houses and compounds. But, before even the mutiny occurred, Sir Henry had fixed on it as the position which was to be finally held, which was to stand the siege, the works of which were to be proof, if possible, against Artillery. But these works had to be constructed from their foundation. It was no old Fort which had to be put in repair, no position already tolerably strong, to be made stronger. Until certain works were completed, the place was as utterly worthless for any purposes of defence, as any ordinary houses and compounds could possibly be. Pending therefore these works, pending the state of transition, a ready made position was turned to use; and this position it was determined to hold as long as an attack might reasonably be expected from only a rabble, or a force unaccompanied by Artillery. But it was distinctly directed, or rather, intimated that, on the probability of an organized party threatening a siege, a concentration was to be effected on the Residency. This Mr. Gubbins acknowledges to have been decided on, but only as a subsequent arrangement. We know that it was the policy from the very commencement. Mr. Gubbins' statement about guns, ordnance, and other stores which were sent back to the Mutchi Bhawn, is quite correct, but his inference is wrong. The stores which were returned were returned because they had been forwarded to the Residency, while there was yet no room for them. It was for the same reason that powder and provisions were still remaining in such quantities in the Mutchi Bhawn on the occasion of its evacuation. There was no spot in the Residency which was ready for their reception. That the Mutchi Bhawn was still held by the British when the siege commenced, was an error, but was an error not owing to design, but attributable solely to the sudden change from perfect tranquillity to a close and fierce blockade, the respite of those features which had been expected to come, and develop a transition period of the siege. There was a gradual approach of the enemy, no risings in the city,

no progressive investment, distant at first, and subsequently closer. Such were the events that had been anticipated, and on the commencement of which it had been intended to evacuate the Mutchi Bhawn. But all calculations, all plans, were overthrown by the defeat at Chinhut, the close pursuit of the enemy, and by the immediate attack on the entrenchments, amounting to an attempt to take them by coup de main.

Mr. Gubbins is also strong in his censuré on Sir Henry Lawrence for not disarming the native troops. We ask him what would have been gained by disarming them; would it have curtailed the power to injure of a single sepoy? We think that the hundreds of thousands of arms since confiscated in Oude, give all the answer that is needed. We ask Mr. Gubbins, if, by disarming them, such of the sepoys as remained and did such good service in the defence would not have been alienated. And what would the little garrison have done without those gallant comrades. Every writer on "the defence of Lucknow" has concurred in the opinion, that to their presence may the success of the defence be attributed, that without them it would have failed. Referring to Chinhut, Mr. Gubbins says "I have often enquired, but I have never learnt the name of any one who had counselled the step, which resulted in so severe a calamity." We believe therefore that we are conferring a benefit on Mr. Gubbins, and giving him an opportunity to explain fully a circumstance, of which he as yet generally bears the blame, when we tell him that the universal belief of the members of the garrison appears to have been that it was by his advice, and on the strength of his information, that Sir Henry Lawrence undertook the expedition to Chinhut; that Sir Henry would not have undertaken it, if he had been aware that the whole rebel force was, or was to be, at that position; a fact however, of which Mr. Gubbins acknowledges that he had himself been duly informed.

We will now leave Mr. Gubbins for the present, and touch on the other point we have mentioned affecting the military character of Sir Henry's policy. The propriety of retaining or evacuating Lucknow, is a question which has been mooted by none of the writers we have quoted, nor indeed by any that we have heard of. But it is one which we believe has formed the subject of much discussion in other ways. We have heard numerous gentlemen, many of them experienced military officers, assert that Lucknow was essentially a false position, that Sir Henry should have evacuated it and fallen back on Cawnpore, and if need be on Allahabad. We agree with this opinion to this extent that we believe that, under certain circumstances, such would have been the proper movement. Had there been no

British in Lucknow save the troops, had the enemy been such that the departure of the troops would not have involved the massacre of all the British left behind; such that, beyond ordinary elation or depression at success or misfortune, the moral and physical courage of the enemy and their actual conduct depended on abstract realities, not on the moral attitude of their foe; had Cawnpore or Allahabad been points of which the British were secure for all warlike purposes; then we allow that Lucknow should have been evacuated, and the British forces should have adopted the Ganges as their line of operations; or if too weak for that, have fallen back on Allahabad. But the actual circumstances were so different, the moral and political influence of every movement operated so powerfully in proportion to its military character, that we believe the evacuation of Lucknow would have proved a blunder. If Sir Henry Lawrence had attempted to remove the families of Lucknow to Cawnpore, or to give any of the signs of an intention to evacuate, before the 11th of June, the day on which Neil reached Allahabad, the report of the retirement, the inference of our weakness, would have turned Brasyer's Sikhs, and lost us Allahabad. To have attempted the evacuation subsequent to that date, would have been tantamount to giving up every non-combatant to slaughter, to yielding up the hundreds of guns, the immense arsenal of Lucknow, into the hands of the enemy. It would have necessitated the struggle of a weak European Regiment through a hostile country up to the banks of the Ganges, to find all means of passage removed, the opposite shore held by a numerous and exulting foe, and themselves deprived of all means of recruiting their Commissariat. Whenever the evacuation might have taken place, it would have been the signal for the rebellion of the whole country. It would have infused among the enemy a spirit and morale, the want of which was their weakest point. It would have let loose on our small, detached, and struggling bands, and with the prestige of success, that host which they afterwards encountered seriatim, disheartened and depressed by their fruitless efforts against the insignificant little garrison which had kept them at bay.

While Lawrence was thus preparing for the struggle, the horrors of Cawnpore had commenced, and were now nigh over. Sir Hugh Wheeler had been besieged, betrayed, and destroyed. Unwilling to believe in the cruelty of the coming mutiny, he had prepared what were at best but feeble breastworks, utterly incapable of protecting ought save such as might lie down behind their

They were uselessly situated, and in fact the position rendered beyond a few days simply a physical impossibility.

An outrenchment on the river side, the possession of the magazines, and the collection of a couple of months' provisions, would have saved Cawnpore. Wheeler surrendered on the 27th June, having held out twenty-three days. In nineteen days more Havelock had arrived.

On the 4th of June Neill had secured Benares; a week later he was at Allahabad. Another week and he had cleared it of the rebels. Now troops continued to reach Allahabad, and finally came the Commandant of the expedition—Henry Havelock. On the 30th of June Renaud was sent out in advance with a party to patrol towards Cawnpore. Two days later came the tidings of the massacre. On the 7th of July, Havelock, with his avenging force of 1,000 Europeans and 180 natives left Allahabad. On the 12th he won the victory of Futtehpore, on the 15th of Aong and of Pandoo Nuddy. On the 16th he had retaken Cawnpore. Thus we find that by the beginning of July, a weak British force had undertaken the siege of Delhi, with an audacity which alone saved it and the Empire from destruction. Nearly every station in the Bengal Presidency save Dinapore had mutinied: Cawnpore had fallen. Lucknow was besieged, but Havelock was already taking the first steps in his course of retribution.

For the next few months little of interest occurred; no prominent part in the great struggle could be taken at the seat of Government. All that it was in Lord Canning's power to effect at this time was to urge for reinforcements, and generally to arrange for the arrival and despatch of troops, to make the best use of the men and means which he had at his disposal. Outram was summoned from Bombay, the Regiments for China were stopped en route, the 5th Fusiliers arrived from the Mauritius. Steamers, railway, horse daks, and bullock trains—all possible means of transport were employed for their use. Columns for field operations were organised in both the Madras and Bombay Presidencies. A Column from Kamptee advanced towards Jubbulpore and Saugor: another from Deesa to Neeshuch. Troops for the Central India force were concentrated at Mhow. The Bombay Fusiliers, and other corps after them, were ordered up to Mooltan.

Sir John Lawrence had turned the tide, at any rate for the present, in the Punjab. Corps after Corps of Infantry and Cavalry, Sappers and Artillery, were raised of all classes, Sikhs, Punjabees, Afghans, and Belpochees, and force after force was forthwith despatched to swell the army before Delhi. The gallant guides were the first to start. They were followed by the Jullundur and Ferozepore Brigades and some newly raised Sappers and Artillery, and lastly, after the defeat of the 49th at

Trimmoo Ghât, Nicholson was despatched with his flying column to the same focus of war. We left Barnard settling down into his position before Delhi. This position may be thus described: The face of Delhi before which our army encamped was the North face. At its last corner, on the river, was the water bastion; at its West corner the Moree Bastion. Between the two was the Cashmere Bastion. On the West face of Delhi, a little to the South of the Moree Bastion, lay the Cabul Gate. Here the Delhi canal, whose course was almost due East, entered Delhi. On the South side of this canal and close up to Delhi lay the suburb of Kishengunge; straight North from Kishengunge a quarter of a mile from the canal, commenced the ridge. This stretched for three miles N. N. E., till it closely approached the Jumna. Thus the Southern extremity of this ridge was close to the canal, and to Kishengunge, and half or three quarters of a mile from the city. This ridge was the main position; hence Kishengunge was on the right flank. To the rear of the right of the ridge lay the Subzee Mundee; on the middle of the ridge was the flag staff, and the right half of the ridge was divided into three even portions by a mosque and Hindoo Rao's house. This building—the one most to the right, was the readiest object of attack by the enemy, whether from the city or from Kishengunge, and was therefore a post of honor. It was held throughout by Reid and his Sirmoorees. The centre battery was constructed immediately in front of Hindoo Rao's house, the left battery abutted on it, while the right battery was on the extreme right of the ridge. To the East of the flag staff, on the river bank, a mile North of Delhi, was Metcalfe's house. The Koodsia Bagh was a garden on the river bank one quarter of a mile North of the Water Gate. To its West, and half a mile from the Cashmere Gate was the building called Ludlow Castle. Before the preparations for the coup de main which we have already described, the enemy repeatedly assaulted the position; on the 8th, 10th, and 11th of June, the attacks were on the right of the position at Hindoo Rao's house; and on the 12th from Metcalfe's house on the left at the flag-staff Tower. In consequence of this attack of the 12th, a picket was thrown into Metcalfe's house, and the British left thus thrown considerably forward. After the repulse of the attack from Metcalfe's house, the right and right rear were attacked from Kishengunge and the Subzee Mundee, and continuous assaults in similar style were daily made for some time. On the 15th, they attempted a change in their tactics by endeavoring to turn the left flank by a secret march along the river bank; but they were detected and repulsed with loss. On the 17th the British became the aggressors, and the enemy on the

ridge to the right were attacked from Kishengunge and the Subzee Munde. A gun was taken, a magazine and battery destroyed, and a severe blow dealt to the enemy. They endeavored to retaliate on the 19th, when by a well planned march, the Nusseerabad Brigade turned our rear, and a severe fight ensued on all sides. A few days more however saw the completion of two important batteries, one on the rear, the other on the right rear at the mound, by which attacks from those directions, or from the Subzee Munde, were rendered more difficult. Advantage was taken of a subsequent attack of the enemy from the Subzee Munde to drive him from it, and secure it permanently by the establishment of pickets in its serai and temple, connected by a breast-work with the picquets and battery on the ridge. Attacks more or less serious were almost daily made by the enemy, but there was never difficulty in repelling them.

Towards the end of June, reinforcements began to arrive, and by the 3rd of July, the 8th, the 61st, the 1st Punjab Infantry, 5th Punjab Cavalry, newly raised Sikh Sappers and Artillery and four H. A. Guns, were added to the force which now numbered 6,000 men. By this time on the other hand, what with the Nusseerabad, Neemuch, Jhansi, Rohilcund, and Jullundur troops, in addition to the original mutineers from the more immediate neighbourhood of Delhi, the disciplined rebels there could not have numbered less than 30,000 men. On the 30th of June, the British again took the aggressive, and cleared Kishengunge. This was followed on the 3rd of July, by the despatch of a force of 1,100 men and 12 guns which was sent out under Coke, to attack a party which had been seen to leave Delhi in a northerly direction; and for the next few days various detachments were sent out to destroy the bridges over the Canal, and over the cut from the Nujjughur Jheel by which hitherto the enemy had means of access to the rear of the British camp. On the 9th occurred the surprize of the camp by the 8th Irregulars, and a strong attack accompanied by a furious Artillery and Infantry fire on our right flank; the result was an advance by Jones through the suburbs on the right, with a loss inflicted on the enemy of 500 killed. On the 14th and 18th were the last attacks made by the enemy on the Subzee Munde. The defensive works there were now completed, and the enemy would risk no more assaults. During the rest of July nothing of interest occurred, save a fruitless effort on the part of the enemy to repair some of the Bridges which our Engineers had destroyed.

In August they attempted to strengthen and advance their position by occupying and entrenching the Koodia Bagh, and

Ludlow Castle in front of the Water and Cashmere Bastions. But on the 12th Showers surprised them, and drove them out with great slaughter, capturing four guns. On the 5th of July, General Barnard had died of cholera, and on the 17th, General Reid, being forced by ill health to leave the camp, appointed General Wilson to the command. Additional batteries had been constructed on the ridge, and entrenchments or breast-works connected all the works together, and included the Sammy House, an advanced position on the front and extreme right of the ridge.

Early in August a glorious reinforcement arrived in Nicholson with his Light Column, which consisted of the 52nd, a wing of the 61st, the 2nd Punjab Infantry and the Mooltanee Horse. His genius was promptly felt. A force of the enemy was reported to have left Delhi towards the North to intercept the siege train. Hodson, a Cavalier of Cavaliers, was sent in advance to watch them, and Nicholson followed with his Infantry and guns. Hodson sighted them twice, and nearly exterminated two bodies of the enemy's Cavalry. The enemy endeavored to follow up the design in greater strength. But on the 25th of August, Nicholson met them at Nujjufghur. He had forced his way across an inundated country without roads, a feat which few but he would have attempted. The enemy were all prepared for a fight, and their position was strong. Its key was a serai on the left. The old manœuvre was repeated. The guns dashed up to within 300 yards of it, poured in a storm of fire, which hopelessly silenced the enemy. The Infantry charged and took the serai, then changing front to the left, swept irresistibly down the hostile line. The foe fled precipitately; the whole of their Artillery and camp equipage was taken, and Geneste blew up the bridge, thus removing the means by which the enemy might endeavor to repeat the attempt on the siege train.

We have thus described the proceedings of the force before Delhi from their first undertaking the siege up to the arrival of the Artillery, by which they might now hope to accomplish their object. Hitherto the British tactics had been perforce defensive. The besieged were perpetually making sorties and attacks, endeavoring to turn one of the flanks, and occasionally attempting to get into our rear, and cut off the communications. To the ordinary reader the interest lay in the gallantry with which the troops engaged and fought, in the dash displayed in the various encounters.

But equally prominent in real importance, calling for an equal display of heroism and endurance, and of greater influence on the final results, were the operations of the Engineers. They

are now about to become more interesting and exciting, because aggressive; hitherto they had been purely defensive. The three original batteries on the ridge had been first formed. These were followed by mortar batteries interspersed over the ridge; by a flanking battery to the extreme right near the Sammy House, and by the rear batteries. All the picquets had been strengthened and entrenched. As the Subzee Mundeas and other suburbs were taken, the exertions to strengthen and secure them had been unremitting. Trenches of communication had been excavated at the right of the ridge, and the other more exposed positions. The canal and other bridges which admitted of the enemy's approaches, had been all destroyed, save one which was retained for the use of the British, but which also was mined, loaded, and ready for explosion in case of sinister movements by the enemy. As a preliminary to the final aggressive operations, the battery near the Sammy House had been constructed to protect the right of the breaching batteries which we should afterwards have to erect, while the park had been filled with vast quantities of the requisite entrenching material.

The strength of the enemy in numbers and in Artillery left but one course of operations open. Whatever was to be done, whatever batteries were to be made, the work must be carried through promptly and invisibly. Of course the North face was the face to be attacked, but the real points for assault were to be limited to the Easternmost bastions. Our right was our strongest point, there we had already planted our batteries. Hence the work was to be commenced on the right, and would tend to deceive the enemy into the supposition that it was the point of attack, the chief fighting ground, as it had hitherto been in the various rencontres.

On the 6th the siege train had arrived, on the night of the 7th the first battery was constructed. It faced the Moree Bastion, was directed against it and the left of the Cashmere Gate. On the 8th or 9th, the second battery, to breach the right of the Cashmere Gate, was constructed. It was in the grounds of Ludlow Castle, where our picquet had previously been established. A picquet was similarly placed in the Koodsia Bagh. These two batteries were about 700 yards from the bastion which they faced, and they opened fire on the 11th, smashing to pieces the opposite parapets, and completely silencing the enemy's fire. Meanwhile, however, a still more prompt and conclusive work had been effected. Uncertain where to place the battery, which was intended to breach the Water Bastion, Captain Taylor had advanced to reconnoitre from the Koodsia Bagh. Stealing cautiously along, he approached the

Custom House, a building within 200 yards of the Water Bastion. Hearing no sounds of voices, he advanced up to it; peered round its gate, saw no one; in through it to the windows of the building, no one there; round the compound, it was evacuated! Its wall facing the Bastion prevented the enemy from looking into it; no time was lost; a working party was procured, a six gun battery commenced, which unmasked and opened fire on the 12th. A fourth battery of mortars was constructed behind the Custom House. Day and night, till the evening of the 14th, these four batteries poured shot and shell from fifty guns and mortars on the devoted city. In forty-eight hours the musketry parapets of the enemy were smashed to pieces, and two practicable breaches effected in the Cashmere and Water Bastions. These breaches were examined by four Engineer Officers, Greathed, Horne, Medley, and Lang. Rarely, if ever, has this hazardous duty, hazardous at all times, pre-eminently hazardous and difficult from the relative position of the besiegers' works and the ramparts of the enemy, been so gallantly and coolly performed.

The assault was arranged for the 14th. The force was organized into five columns—three for the actual assault, one to protect the right, and one for the reserve. The columns of assault were to enter respectively by the Cashmere bastion breach, by the water bastion breach, by the Cashmere Gate, which Home and Salkeld were to blow up. How the storm was effected, how gallantly Nicholson and Jones led in over the two breaches, how gloriously Home and Salkeld made a way in at the Gate, over a dismantled bridge, and in the teeth of a storm of musketry, need not now be told. All have the tale written on their hearts. Suffice it to say that nearly a third of the storming force were struck down, ten fell out of seventeen Engineers, the guides and pioneers of the columns. The immediate result of the storm, was the possession of the North of the city with the ramparts as far as the Cabul Gate. In an attempt to storm the Bastion immediately to the South, the Bum Bastion, the heroic Nicholson was mortally wounded. During the remainder of that day, and on the 15th, the position was secured, and batteries erected, and opened on the Selimgurh, the magazine, and other portions of the city. On the 16th, the magazine was stormed, and as our advancing position was beginning to enable us to take the Kishengunge in flank, the enemy evacuated these suburbs. Our progress was steady and speedy. On the 17th, and 18th, our line had advanced up to the palace and the Chandnee Chowk; on the 19th, the Bum Bastion was stormed from within, our Cavalry entered the Delhi Gate from without, advanced, and took the Jumna Musjid; the Palace Gate

was blown in, and the last stronghold of the enemy was stormed and taken. On the 21st, the King was captured. On the 24th all was secure and safe, and Colonel Creathed was despatched to clear the Doab, and effect a junction with the troops from the South.

Thus was Delhi taken by a force which, numbering 2,500 only at first, undertook the task in firm reliance on their own courage, and the support of the Punjab. For three months they waited patiently on the defensive, till the arrival of reinforcements which increased their strength to 8,000 men, and of the siege train which enabled them to assume the offensive. A week more saw the storm of Delhi; another week and it was entirely in their hands, with the King of Delhi a prisoner, and the rebel force scattered to the winds.

While thus the little Delhi field force was exhibiting to the world an imperishable example of self-reliance and military virtue, other and not less exciting incidents were occurring elsewhere. From Delhi to Cawnpore the country was in open insurrection. Agra was threatened by the Gwalior force whom Scindia was restraining under the influence of Dinker Rao and Major Macpherson. The only break in the wearisome stillness of their separation from the rest of the world by the circle of passive foes, was the fight of the 5th of July, when the Neemuch Brigade, on their route to Delhi, amused themselves with a passage of arms with the regiment at Agra. Havelock was persistently endeavouring to succour the beleaguered garrison in the entrenchments of the Residency at Lucknow.

We left this hapless little band surrounded by foes, at whose hands they had sustained a severe defeat. They were still in two positions, the Mutchi Bhawn and the Residency. But the separation was not long to continue. On the evening of the day when the siege commenced, a warning was sent to Colonel Palmer who commanded at the Mutchi Bhawn, to be prepared for evacuation. Next day the message was signalled by telegraphs erected on the roofs of the two buildings, that the evacuation was to be at midnight, and that the magazine was to be blown up. Colonel Palmer's measures appear to have been perfect. The arrangements were kept secret till the proper hour; a heavy fire from both positions cleared the road between them. An unmolested march of ten minutes through a quarter held all day by the insurgents, brought the Mutchi Bhawn force into the Residency. The train to explode the magazine was prepared by Captain Thomas, and took effect at the exact time, immediately after the junction had been effected. By the unwearied exertions of Brigadier Inglis and Captain Wilson, the disposition of the troops in the various garrisons was arranged, but it was

not for several days that the men steadied down to their duties. For the first week the efforts of the enemy were furious. The roar of musketry was continual. Shot and shell invaded every building; parallels were sapped on all sides; the enemy appeared to threaten regular approaches. Nothing however having been effected, the energy of their measures subsided, and was never resuscitated. On the 2nd of July Sir Henry Lawrence was mortally wounded, on the 4th he died. Short as was his share of the actual siege, it sufficed to give it the heroic and dauntless tone which characterized it to the end.

The story of this siege is so well known that we will not attempt to narrate it; but we propose to analyse and describe some of the features, which, we believe, have been unavoidably hidden beneath the all absorbing interest of the more exciting and pathetic incidents of Mr. Gubbins' narrative.

The phases of the siege may be portioned off between the various attempts at storming the entrenchments which the enemy occasionally made. These assaults were made on the 20th of July, the 10th of August, and the 5th of September. The first was the fiercest and most desperate; the second was very determined but not so vicious; the last was an attack only in name, the enemy tried no fighting, they appeared cowed, they allowed themselves to be helplessly slaughtered and shot down. Let us compare their dates with those of Havelock's movements. On the 21st of July he began to cross the Ganges; on the 6th of August he retired to Nunguwar. On the 10th of August the Nana began to threaten Cawnpore. In the beginning of September, the preparations for the bridge across the Ganges were begun by Captain Crommelin. We may fairly infer that the first attack was made in the hope of destroying the garrison before the arrival of reinforcements; the next in exultation at the supposition that Havelock had been finally repulsed, and was likely to find sufficient work cut out for him by Nana, to occupy his undivided attention; the last, a final and almost hopeless attempt at a coup de main, before the arrival of Havelock's force, whose intention to advance was becoming patent.

The invariable characteristic of every assault was a simultaneous attack on all sides, preceded by the explosion of one or more mines, and a rush at two or three points in the defences which they believed to be the weakest. They attempted none of the civilized modes of attack. They fixed on no points, on which systematically to take steps to form an entrance. They never concentrated the fire of any of their guns; they never kept up a persevering fire from any one gun, or battery of guns; they never directed their fire so low as to be likely to effect a breach. Their whole system of gunnery was simply to

annoy the buildings, to destroy the upper stories of houses, to kill a few men by stray shots. They appeared ignorant of enfilade fire; the only battery which they silenced, or attempted to silence, was the Cawnpore battery, and this was effected not by their Artillery but by their musketry.

Mining was the only description of attack to which they took *con amore*; and in this they were beaten time after time, and failed miserably from their want of every quality which is essential to such work, save the knowledge of the manipulation in which they appeared to excel. With their inexhaustible supply of labor, with such a length of front for their operations, they ought to have blown up the whole of the Southern front, without a chance of successful opposition. But they happily adopted the only procedure, by which it was possible for them to fail. They worked at only one or two mines simultaneously, they worked without attempting to conceal their intentions, they selected the most difficult places.

Up to the 20th of July they attempted but one mine; that they aimed at the Redan: they shewed unmistakeably what they were trying, but the Redan was a position which, from their point of attack, the most successful miner could hardly hope to undermine: the Engineers predicted hopeless failure, the results justified their opinions; but what grand and noble courage must we ascribe to those who, garrisoning that Redan, unsupported by a like assurance of the result, calmly and without a murmur held the post which they hourly expected to give way beneath their feet. Captain Lawrence of the 32nd, and his gallant party, have given an example of soldierly devotion and undaunted courage which can never be surpassed.

After the attack of the 20th of July, the enemy began mining on the South face: these mines were not worked at simultaneously but in succession. They first attempted the Cawnpore Battery; here their mine was destroyed by Bonham's Artillery fire; they then attacked the Brigade Mess, but this mine was stopped on the commencement of a countermine: they began a third opposite the Sikh Square but were defeated by a countermine, from which Fulton and Hutchinson broke into their gallery, drove them out of it, and placing a charge in it, destroyed it and the house from which the mine had been commenced. They subsequently recommenced a mine against the Brigade Mess, or rather against the building next to it, the Martiniere, and also another at the outer buildings attached to "Sago's Garrison." These two mines they exploded harmlessly at the commencement of the attack of the 10th of August. A repetition however of the attempt on Sago's garrison was imme-

diately made, and again defeated by Hutchinson who blew in their gallery.

Their next attempt, and it was the only one that succeeded, was against the Sikh Square. It made a breach in its wall for a length of ten yards, ample space for the charge of a storming party; but when the moment arrived their hearts failed them; they would not make the rush, and the breach was deliberately retrenched and barricaded. Another mine was commenced against the Brigade Mess, but it was broken into from the ready prepared countermine. One against Sago's was destroyed by the rains, so was another against the Bailey Guard. A mine directed on Anderson's post was stopped by their knowledge of our being prepared for them.

They now commenced three mines simultaneously, preparatory to the attack of the 5th of September, against Saunders' post, the Brigade Mess, and Gubbins' bastion. Hutchinson was all prepared for the Brigade Mess should they approach too close, but they did not do so; Innes destroyed the mine at Saunders'; they began another for the same building, and were again defeated, Innes breaking into their gallery and blowing it up. They exploded the other two mines, those at the Brigade Mess, and Gubbins' bastion; of course without effect. These were their last attempts. Subsequently three countermines of the enemy at the Cawnpore battery, the Sikh Square and the Church, were destroyed by Captain Fulton. After the arrival of Havelock, a mine directed against the Redan, and two shafts near Gubbins' bastion, were discovered. Hence, from first to last, the enemy attempted twenty-one distinct mines, and were foiled in all but one. The presiding genius of these successive victories was Captain Fulton. We find him inexhaustible in his resources; we find him described as having adopted, at various times, no fewer than six different modes of acting against an enemy's mines.

1st. A sortie was made, the shaft discovered, and the roof of the mine destroyed.

2nd. He had shells sent all over its probable position, and then explosion shook it in.

3rd. He countermined, loaded his own gallery, tamped back, and by exploding his own, destroyed the enemy's mine.

4th. He excavated towards the enemy's gallery, and broke into it.

5th. He allowed the enemy to break into his own galleries, fought the entrance, and took possession of the enemy's mine.

6th. He either destroyed the enemy's mine, or retained possession of it for defensive purposes.

Besides, combating those mines that were known to exist,

Captain Fulton was unceasing in his measures to secure, by listening galleries, the fronts of the most exposed positions. The Treasury, Saunders', Sago's, Germon's, Anderson's, the Brigade Mess, the Sikh Square were all, by Havelock's arrival, almost perfectly secure from the enemy's subterranean attacks. And in fact, the Cawnpore Battery and Gubbins' bastion were the only points at all in danger from mines. Aggressive mines were also undertaken. Johannes' house was the most murderous post of the enemy. Its sharpshooters enfiladed the road intersecting the Residency, and running Southwards from the Hospital. They commanded the Sikh Square, the Brigade Mess, and the Cawnpore Battery. A mine was run under it from the Martiniere, and exploded on the 21st of August, laying the house level with the dust.

We will quit this subject with one remark. Mr. Gubbins, referring to the mines afterwards discovered in the direction of the Redan, says, "the result proved that those who had all along declared that a mine was in progress had been right, while our Engineers, who had discredited it, had been for once mistaken." We are inclined to believe that the Engineer Officers did not discredit the existence of the mine; they only asserted that no attempts of the enemy to mine there could be successful, and that therefore no notice whatever need be taken of the circumstance.

These countermines, and the steady conduct of the defenders at the outworks, were the chief means of the successful defence, but the subsequent diminution of casualties, and the comparative safety of the inmates of the entrenchments, were due to the skillful and unremitting exertions of the Engineers to defile the position. Equally influential for the permanent results, incalculably beneficial from the morale they created, were the sorties effected by the garrison. These were all designed and conducted by Captain Fulton, and carried out on one principle. It is one which may give a hint for future procedure on a greater scale. A party was told off for covering. Each man was given his door or window or loophole to watch. Captain Fulton and a small band would dash out to the door of an occupied building—they would stand under cover of its wall—revolver in one hand, grenade in the other, he would light, and send the shell in, in round-hand bowling style, through the entrance of the building. As a matter of course the missile caused the precipitate retirement of the hostile occupants; they got shot down as they fled; the grenade exploded; Fulton and his band would rush in and secure the building, the adjacent houses commanding it would be similarly occupied; with the road thus secured, the powder and other means of destroying the building would be lodged

and prepared for explosion. When all was ready, the parties in the surrounding houses would be successively withdrawn. Fulton and an escort having lighted the train would finally evacuate the building. The explosion and its demolition would forthwith ensue.

We have heard the question mooted why were not more buildings demolished before the siege began, and we have also heard and read of many ridiculous reasons given in answer. But the facts appear to be these. It was designed to demolish all the very near buildings to prevent mining, but there were certain buildings the propriety of the demolition of which was doubtful, because while on the one hand they might serve as positions for riflemen, they might be useful, on the other hand, as traverses against Artillery fire. As, therefore, it was anticipated that the attack on the Residency would be, like that at Cawnpore, one of Artillery from a distance, it was decided that these should be demolished last of all. Hence the Western face of the Residency entrenchment, which had a mass of débris in front, was not mined, but it suffered excessively from the Artillery fire and severely from musketry; and while the musketry fire was more severe on the South face, still the lower stories of the Seikh Square, Brigade Mess, and Martiniere, the houses before which had not been demolished, (owing to want of time) remained comparatively secure from Artillery.

We also wish to give an explanation on a point, which from the enquiries we have made, does not appear to us to be so satisfactorily described by Mr. Gubbins as it might be. We allude to the account given by Brigadier Inglis of the state of his provisions, and we doubt whether Mr. Gubbins has correctly quoted his letter; whether there is not an omission in either the body of the letter, or of a postscript. Provisions are of two kinds, animal and vegetable, and we are informed on unquestionable authority that the letter distinctly alluded to the probable failure of *meat* provisions, not of every description of food, and stated that the men, worked and harassed as they were, would not be able to exist without meat. The date named was the 10th September; on the 25th, after a greater loss in men than had probably been anticipated, the means for procuring meat were expended; and the cattle which were killed for the last few days supplied food, which would not have been issued, save in such extremity. All Mr. Gubbins' wonder and astonishment therefore "at so serious an 'error'" go for nought; and he might have added to the possible reasons for his assumed mistake, among which reasons he takes care to mention that the commissariat officer did not himself stop the supplies, this reason, that the commissariat officer

was throughout lying on a bed of suffering, shot through the knee, yet still striving to give the little help that he could to the gallant work going on, and that for the conduct of the commissariat arrangements, and for information on all points connected with them, Brigadier Inglis had to trust to officiating officers, zealous and hard-working, but nevertheless inexperienced. We mention this circumstance, because, although not actually a matter of strategy or of military skill, still it has to do with the discretion, and intelligence of the Commandant of the Residency, and was of grave importance in its influence on the operations of Havelock and Outram. To these we will now draw the readers' attention.

We have already described how Havelock, advancing from Cawnpore, defeated the forces of the Nana at Futtehpore, Aong and Pandoo Nuddy, and retook Cawnpore. These victories he followed up on the 19th of July by an expedition to the Nana's residence at Bithoor, which however he found deserted. On the next day he was joined by Neill with reinforcements, and at once commenced his preparations for an advance on Lucknow. These preparations consisted of the passage of the Ganges by the expeditionary force, and the construction of entrenchments for the defence of Cawnpore. The site was selected on the bank of the river, on high and commanding ground, near the town and bazaar, and it also was the best position for covering the passage of the troops. It contained a number of houses, and in fact, a very small amount of work turned it into a defensible post. The passage of the Ganges was unopposed by the enemy, who indeed never made their appearance. Pier heads were constructed on both sides of the river; all the boats procurable were collected and decked. The passage was effected by sailing if there was wind, by rowing or by the towing of the *Berhampootee*. It commenced on the 21st, and was not completed till the 28th of August. On the next day Havelock advanced towards Lucknow. At Oonao, ten miles from the river, the enemy were drawn up in a series of gardens and compounds commanding the road, with long ranges of impassable swamps on their flanks. Skirmishers and light guns to the front, and a charge with the bayonet, and the rebels evacuated Oonao. But they again drew up in the open beyond, strongly supported by Cavalry. An immediate advance on the left, in echelon of regiments and detachments for the right, sent them to the right about, leaving all their guns in the possession of the British. A halt for breakfast, and then "forward" was the word. They approached Busherut Gunge, five miles from Oonao; it was a walled village on the road, with swamps on every side, and earthworks in front. The 64th were detached to the right,

through the swamp, to threaten the enemy's rear. This with the steady advance of the main body, the guns playing on the gateway, had the desired effect. A struggle at the breast-work, and Busherut Gunge was won. But the loss in these two fights, and the appearance of cholera and dysentery, shewed Havelock that he could not relieve Lucknow with his present force. He retired to Oonao, and then to Mungurwar, there to await reinforcements. Such men as Neill could spare he sent to him at once; and with this addition, Havelock again advanced. Oonao was evacuated; Busherut Gunge was occupied. On the 5th he attacked the enemy. Turning their left, he stormed them out of Busherut Gunge, and followed them up relentlessly, driving them from village to village, till they broke and fled in the open, when his men were too few and too wearied to pursue. Cholera again broke out; again he retired to Mungurwar. With his present strength he saw it was hopeless to reach Lucknow, he now heard also that the Dinapore sepoys had mutinied, that he need hope for no more reinforcements for another month, that Cawnpore was again threatened by the Nana. The dilemma was sickening—heart-breaking—but choice he had none. Back he must go to Cawnpore. Lucknow must hold out as it best could. A retreat, however, across the river with an enemy hovering on the rear, was a different matter to an unmolested advance. It was quite certain that a passage similar to that in July would be attended with great risk and much loss. Too much importance therefore cannot be attached to the skill and perseverance by which Captain Crommelin of the Engineers, in the face of all difficulties, in opposition to the views, as regarded practicability and success, of nearly every officer with the force, designed and constructed a causeway over a width of upwards of a mile of the inundated shore of the Ganges, bridging the narrower and deeper parts. The portion of the river which had to be ferried was thus reduced to nearly 700 yards, about a quarter of the original distance. On the completion of the causeway therefore, the General determined to make a last stroke at the enemy, and then withdraw into Cawnpore. He advanced from Mungurwar on the 11th, halted for the night at Oonao, and next day went at the foe. Their position was stronger than hitherto. It was half way between Oonao and Busherut Gunge, and extended for five miles, crossing the road in its centre. Again the little force went at the enemy's left, in echelon from the right. Again the fire of the Artillery and of the Enfields, and the shock of British steel, were irresistible; the enemy's left was turned, and their line enveloped; a struggle on the enemy's right, and the Madras Fusiliers driven back the hostile Cavalry; the field was won,

the enemy's guns were captured and turned on the flying foe, whose rout became precipitate. With his rear thus secured, the General marched back to Mungurwar, and next day crossed into Cawnpore. From first to last the passage occupied only five and a half hours.

While Havelock was making his first passage across the Ganges towards Lucknow, the Sepoys at Dinapore were breaking out into mutiny, crossing the Soane, and besieging Arrah. On the very day that Havelock was routing the rebels at Oonao and Busherut Gunge, the detachment of the 10th was getting out to pieces at Arrah. A spark was being struck which might light up the whole of Behar—but the hand to quench it was ready. Eyre had just reached Dinapore with some men and three guns. With 200 Infantry and his guns he at once proceeded to the support of the party which had first advanced to the relief of Arrah. On his way he heard of their defeat. He halted in a strong position for the night, and advancing next morning found the line of Sepoys drawn up behind fresh entrenchments on well chosen ground. Again there was the attack on the enemy's left; a well directed and irresistible flank and enfilade fire, to which the enemy had no means of reply; a charge down the line with the cold steel; and the victors of the 29th July were routed on the 3rd of August. Obtaining a supply of ammunition from Dinapore, Eyre followed the enemy up to Jugdespore, where the 10th, who could hardly be restrained, would have nought but the bayonet, and with a cheer and a rush dashed like tigers at the foe, and terribly avenged the slaughter of their comrades. Thus did Eyre preserve the tranquillity of Behar, at a period when to do so was of incalculable importance. With Shahabad and the Grand Trunk Road occupied by the enemy, our reinforcements must have been grievously delayed, the transport of supplies almost hopelessly discontinued.

By this time General Outram had reached Calcutta. The 5th Fusiliers had arrived from the Mauritius; the 90th L. I., the advanced guard, as it were, of the China force, had also been stopped short and landed. They went forward without delay towards Cawnpore, and on the 16th of September, these two Corps and Eyre's victorious party had reinforced Havelock, and Outram, generously waiving his right to command, joined the force as a volunteer.

The halt at Cawnpore had tended to refresh and recruit the old division, and they had kept themselves in training by thrashing the Nana at Bithoor; while Captain Crommelin had taken advantage of the time and of the fall of the river to prepare a bridge of boats across the site of the last passage. This bridge,

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and the remains of the causeway which he had before constructed, permitted the march of the British troops across the Ganges dry shod, and prevented all delay in the transport of materiel. On the 19th and 20th of September, the force crossed; on the 21st, Havelock found the enemy on his old camping ground at Mungurwar, and driving them out of it, sent his Cavalry in pursuit. For fifteen miles did the handful of Volunteer Cavalry, headed by the Bayard of India, chase the rebel rout, capturing three guns and a standard. On the 22nd the force reached Bunnee, the march enlivened by a series of dashing cavalry skirmishes. On the 23rd, it advanced towards Alum Bagh. The enemy were there drawn up in line, and Artillery posted to command the road. There was no manœuvring this time; the Artillery dashed to the front and poured in their fire, the Cavalry charged and took the rebel guns; the Infantry advanced and drove the enemy's line back, and out of the Alum Bagh. That night, and next day, the force halted to rest the men and prepare for the coming struggle.

The probability of a successful issue to it, was due to a very great extent to the intimate knowledge of Lucknow possessed by General Outram, who intended to act as guide to the force. Aware of two very great difficulties that a column advancing from Cawnpore would have to encounter, in the passage of the Syc at Bunnee, and of the Lucknow canal at the Char Bagh, at which points the bridges would in all probability be found destroyed, General Outram had proposed that while Havelock should threaten Lucknow from the Cawnpore direction with his original force, he should himself create a diversion, and, if necessary, assist the passage of the Syc by advancing with the reinforcements along the Goomtee. But on Havelock's representation of the weakness of his force, and of the current report that the bridges had not been demolished, he gave up the project and joined Havelock. From the Alum Bagh there were three routes. One was by the direct and straight road. This was known to be defended by entrenchment behind entrenchment, and battery upon battery. This line was therefore at once rejected. The second was the route by which Sir Colin Campbell afterwards proceeded to the Dilkhoosha, from which point they might advance either by the Secundra Bagh road on the right bank of the Goomtee, or they might cross the Goomtee and march by the left bank. But, at this period of the year, the country between the Dilkhoosha and the Cawnpore road was impassable from inundations; and the route which General Outram therefore decided on, was, to advance as far as the canal by the high road, force the Char Bagh bridge, then turn to the right, and proceeding by the canal until the city was turn-

ed, strike across the ground between the Kaiser Bagh and the river towards the Residency. This was a route which had been drawn up by the Engineer Officer at Lucknow, but it had never reached General Havelock, and the proposition originated solely with General Outram. The plan was strictly carried out. The force started on their march of salvation at 8 A. M. on the 25th of September. It consisted of the 5th, 78th, 90th, and Madras Fusiliers; portions of the 64th, and 84th, and 200 Sikhs; Maude's and Olpherts' batteries, and some heavy guns; the Volunteer Cavalry, 500 men, and some heavy guns were left to protect the Alum Bagh. Outram proposed that the heavy guns and Cavalry should also be left behind, but Havelock did not approve of the suggestion. It admits of very little doubt however, that the proposition was correct, as the heavy guns and Cavalry were found quite useless for the fighting that ensued. The enemy were found strongly posted, close to the camping ground; their position did not admit of attack. A hot fire was therefore kept upon them till the force had passed. At the Char Bagh was the first severe opposition. Aware of some commanding ground whence the enemy's fire might be kept under, Outram hastened thither with a chosen body of rifles, but he was there only in time to see a party of Fusiliers storming the bridge with young Havelock leading on horseback. The enemy's battery was taken, the adjacent houses were stormed and held, and the 78th were directed to occupy them until all the troops and baggage had passed, and then to follow protecting the rear.

The main body advanced by the canal; on reaching the Dilkhoosha bridge, it turned to the left towards the 32nd Barracks; thence towards the Secundia Bagh, Shah Nujeeb and Motec Mahul. Between the Char Bagh and the Motec Mahul the force met with very slight opposition. But at the Motec Mahul and the farther advanced posts, Martin's house, the Stables, Steam Engine, and Hirun Khana, it came under a strong fire from the Koorsheyd Munzil and the Kaiser Bagh. Eyre's guns were brought into position to reply, and they replied successfully. The force halted, and intelligence arrived that the 78th with the rear guard were strongly pressed.

General Outram, knowing that the Furheed Buksh, Chutter Munzil, and Teree Kotee were the only buildings between him and the Residency; believing in consequence of a reconnoissance which he made that these were either empty or being evacuated; having both perceived and heard that the sepoy were flying in all directions, that the only men combating with him were Nujeebs, and that they were fighting only in rear, and at the Kaiser Bagh; satisfied that, as the beleaguered garrison had held out for three months, they could easily hold their own for

another night, that after the late heavy rains no fear need be felt about mining, which had hitherto been his chief cause of anxiety for the garrison; lastly, conscious of the military mistake of not keeping the troops in hand; taking all these things into consideration,—General Outram gave his advice that the force should halt where it was for the night, place batteries in position against the Kaiser Bagh and Koorsheyd Munzil, allow the rear guard, the hospital, and the baggage to come up, and join the Residency next day, by forcing and occupying the intervening buildings which have already been named. But then, not half a mile distant, were those anxious hearts, for whose sake he had been struggling and pressing for the last three weary months; the goal was in Havelock's sight; he determined to win it at once. The order was given; guided by Outram, on went the gallant band, charging through a tempest of fire; the Bailey Guard gate was reached; the garrison was saved.

But, when too late, the error was seen of not abiding by Outram's counsel. The relieving column was completely sundered in two. The advanced party were in the Residency, or the Teeee Kotec and Jail; the rear were in the Motee Mahul, with the heavy guns and wounded. Their deserted position emboldened the enemy to close round and keep up a murderous fire on the Motee Mahul, as well as on all the ground intervening between it and the buildings occupied by the rest of the force. The Furheed Buksh and Chutter Munzil had to be stormed the next morning, and the position afterwards retained along the river front was occupied. A party was despatched under Colonel Napier to escort in the rear guard. The guard and the guns were safely brought in, but the wounded were led out of their proper route and surrounded by the enemy. A few only, escaped. The rest were ruthlessly murdered; their heads were cut off, and messengers were sent with them after the fugitive sepoys, with taunting allusions to their flight from dead men. They of course returned and renewed the struggle. We believe firmly, that if Outram's advice had been followed, the relieving force could have concentrated on a strong and protected position; have silenced the enemy's fire; and the connection with the Residency would have been made next morning without any fighting at all. The moral effect on both sides would have been far different; instead of running the gauntlet to the assistance of a hard-pressed force, the British would have appeared bearing down all opposition; driving the enemy before them at all points. The sepoys had all fled; the men who made all the fighting, and who inflicted the chief loss, were the Nujeeb followers of Maun Singh and other chiefs. This loss occurred principally in the last night, and at the rear guard left at the Motee Mahul; and

it would therefore have been avoided. These chiefs and their Nujeebs had only now for the first time entered the lists against the British. It was known that they did so chiefly from a feeling, or semblance of feeling, of Rajpoot or national honor, and they would have gladly accepted, if they could have done so with good grace, such terms as Outram would have been ready to offer, and which could not have been otherwise than lenient. We believe, in fact, that the Residency would have been really and substantially relieved, that the leading Oude chieftains would have surrendered, the merchants have flocked in under British protection, and Lucknow have come again under British rule. Instead of this, the rear guard having been so strongly pressed, that pressure extended all round, and the relieving force was added to the number of the besieged. The whole were closely invested.

Immediately on the arrival of the relieving force, a sortie on the river face cleared all that point, and led to its occupation. A proposition on the night of the 25th to sally on the South and West faces, and take the enemy's guns there, had not received the Brigadier's support. On the 27th therefore, when a sortie for that purpose was made, the enemy were found prepared, and the party effected little or nothing. The Cavalry were ordered out to communicate with the Alum Bagh; but they had to return with their mission unfulfilled. Another and better organized expedition on the 29th succeeded in capturing most of the enemy's guns on the South and West fronts, and in destroying their most mischievous musketry positions, but one of its objects, the extension of the British position to the iron bridge, could not be effected. By the possession of this bridge, General Outram had hoped to initiate a means of communication with the left bank of the river, of making forays in search of supplies, and of establishing less interrupted relations with the merchants and bankers of the city and suburbs.

This route having failed, there was but one other line by which a break in the blockade could be effected. The direct road from the Residency to the Char Bagh bridge, was lined on both sides by strong houses and mosques; these extended thickly for about 600 yards. The two farthest of them were mosques, the possession of which would secure the command of the road for half a mile farther on, where the road turned, and at the bend of this road was another building which enfiladed the road for the rest of the way to the Char Bagh. Hence the General decided on endeavouring to take possession of the road up to the mosques, and, if possible, to the building at the bend of the road. The expedition was organised for the 1st of October. It was to be carried out by Colonel Napier. To divert attention,

feint attacks were made in the morning towards the Kaiser Bagh, and a battery was thrown up fronting its gate; in the afternoon the party sortied right and left of the Cawnpore road. A very strong position called Philip's house and garden was the enemy's chief post, immediately threatening the Residency entrenchments. All was carried up to this, that evening. The party occupied the ground for one night which was spent in making dispositions for the attack. Next morning, the garden and house were carried, and numerous guns taken, and the party made steady progress, attacking and occupying house after house, and turning two entrenchments which the enemy had constructed across the road. The two end mosques alone remained to be taken. But the shades of evening were beginning to come on. Major Haliburton, who commanded the advance, considered that the position which he held was insecure, he could not at that time attack the remaining buildings; he made up his mind, and fell back on a stronger post. The error was fatal. Immediately on hearing of the step, the General ordered the advanced position to be re-occupied without delay; but it was too late. The enemy had followed up and re-taken it, and would not evacuate. An attempt to storm it next morning was repulsed; it had been strongly barricaded and entrenched. The slight retreat of the previous evening had given the enemy heart; they pressed on all sides. It was manifest that the design could not be effected. The General ordered the gradual withdrawal of the party, and the retention by it of a portion of the ground which they had occupied, and which was eventually termed the "Highlanders' Post," from its being garrisoned by the 78th. This withdrawal was accompanied by the demolition of the enemy's strongest musketry posts, and of those mines of which the beginnings had been discovered. But one slight error was here committed. The Engineers were not informed of the position that was to be held; no steps were taken to clear its front, to remove cover for the shafts of mines. Hence the Highlanders had to carry on an incessant subterranean warfare, of the most harassing description. This sortie was the last endeavour to interrupt the blockade, to establish communication with the Alum Bagh detachment, to forage for supplies. To strengthen the position and abide the arrival of reinforcements, was the only course now left to Sir James Outram.

In the old Residency entrenchments several of the works which had been left uncompleted at the commencement of the siege were now finished. New ones were constructed to secure the more extended development of the defence. At the mosques between the Redan and the river a series of breast-works were thrown up, towards the bridge and the river, and armed

with Artillery. A succession of zigzags, or covered roads, was constructed from thence to the river's edge, where a cut and reservoir were excavated to allow of the safe watering of the cattle. The sheep house battery, flanking the whole West front, was completed and armed. A new and strong battery was constructed at Anderson's post; and finally a most admirable series of parallels, and zigzags was advanced from Innes' garrison towards the Iron bridge, by which the whole of the ground in that direction came under the command of the besieged force. Those localities which we have before described as unprotected, on the arrival of the relief, against mines, were now countermined and rendered safe.

To strengthen and secure the *new* position was a much more difficult operation. It consisted of the Tere Kotce, Furheed Buksh, and jail which were central and safe, of the Chutter Munzil and advanced garden which were in serious danger from musketry, artillery, and mines. The Chutter Munzil had its south front lined by buildings occupied by the enemy, at distances varying from 15 to 100 yards, from which musketry used to be incessantly poured on it, and mines were at work everywhere. The advanced garden was more exposed to musketry, but less to mines; whilst a storm of Artillery was brought to bear on it from all directions.

The whole of the openings in the buildings were speedily and admirably barricaded; and inner lines of defensible works were erected to lessen any mischief which might result from successful explosion of the enemy's mines; the whole outline of the advanced garden was secured by a retrenchment constructed on the double sap principle, and now the defenders were secure from surprise or storm; but serious mischief might be caused by mines, to counteract which was rendered a very difficult operation by the great variety of levels of ground in all that quarter. Before any thorough defence could be instituted, the enemy had made two enormous breaches in the wall of the advanced garden, and two in the portion of the Chutter Munzil which was held by Brasyer's Seikhs. Captain Crommelin first caused shafts to be sunk at salient points, or such as were most likely to be attacked, and on almost the first trial met and destroyed a mine which the enemy were driving at the North corner of the Seikh position. A post from which the besiegers threatened to be mischievous was a mosque near this point. A sortie was organized, the mosque was carried, and two shafts begun. But before these could be turned into use, the enemy had exploded a mine, and blown up the outer portion of the mosque. Fortunately however, a retrenched lodgment had been formed on it, and the only mischief done was the destruction of the advanced sen-

tries. Some six or eight gangs of miners were organized and set to work, and the whole front requiring defence was being gradually countermined. In the course of these operations numerous subterranean rencontres occurred with the enemy. And in this underground warfare the only alteration that we read of that Captain Crommelin appears to have made, from the various modes of procedure that Captain Fulton used to adopt, was caused by the great scarcity of powder. It lay in excavating and filling in the galleries with the debris of their own roofs, instead of lodging powder and blowing them up. In the course of one of these rencontres, Mr. Kavanagh, who afterwards so gallantly won his way to the Commander-in-Chief's camp at Alum Bagh, held a conversation with the inmates of a house, into the gallery of which he had effected an entrance. They were all sepoys, and all ascribed their mutiny to a dread of having Christianity forced upon them. A new phase now also made its appearance in the defence of mines which had been thus seized. Fearing that the victors were laying powder with explosive intentions, the enemy used to inundate the galleries with *mushuk* after *mushuk* of water.

Similar barricades and mines were resorted to in the post held by the 78th; and here perhaps to a greater extent than elsewhere, these exciting contests prevailed, and the most daring deed of the siege occurred. This was the forcing of a gallery some 200 feet long by Lieutenants Hutchinson and Tulloch, who, to win their end, had to indulge in a succession of duels, with foes whom they were unable to see, but to whom they were perfectly visible.

The mining of the first siege was characterized by the skill in the selection of locality, the uniform success in foiling the enemy, and the amount of work done by a handful of miners. None of the mines were long. The longest, that against Johannes' house, was only 76 feet in length. But the mines of the Chutter Munzil developed a perfectly unknown phase in this style of warfare. Mines were excavated; several upwards of 150 feet; one, 298 feet in length, from shaft to chamber, without any air holes, without any apparatus for supplying pure or breathable air. Eventually, the whole front of the position, a length of 2,000 feet, was protected by a subterranean road, interrupted only where the ground was destroyed by the explosions of the mines.

As time advanced, as the limits of the enemy's power to harm became narrowed, as the approach of the Commander-in-Chief suggested plans for co-operation from within, aggressive steps had to be adopted. The General's design was this. On the left of the advanced garden were two buildings, one low,

forming a portion of the Hirun Khana, the other high, a mosque. On the East were the outhouses of the "Steam Engine." He determined on mining these three buildings. The entrance of the mosque was to be partially destroyed, a sortie made, and itself occupied. From its height it commanded some very important points in the Kaiser Bagh, and would serve to paralyse the enemy's nearer batteries. The other two buildings were to be laid low, and in the confusion a storming party should charge and occupy the Hirun Khana, Steam Engine, and the buildings immediately beyond them. A large, strong, and high battery was to be constructed inside the advanced garden, the wall of the garden was to be mined. At a given signal the mines were all to be exploded, the demolition of the enclosure wall would unmask the battery, which would then play on the ground to the North of the Kaiser Bagh, and protect the left of the Chief's advance, while the buildings already mentioned were to be simultaneously stormed.

The execution of the design was duly commenced, the mines to the South of the garden were prepared, that towards the Steam Engine was discovered by the enemy, and destroyed by being beaten in. The battery was duly built, the wall was duly mined; but on account of a day's delay in the Chief's approach, the charge got damp, and the explosions were too feeble. A part of the wall only was demolished by them; the remainder was crumbled down by the fire of the new battery, which had immediately opened. The offensive mines were soon exploded, the doomed buildings were hurled into the air, and Olpherts, leaping on the parapet of his battery, cheered on the storming party as they rushed on the terror-stricken foe.

Here we will leave the Lucknow garrison on the point of being relieved, and turn our attention to the Commander-in-Chief's proceedings.

We may here remark that September 1857 appears to us to mark the most important era in the crisis. Up till then the struggle had been maintained solely by the resources in India itself; and though the pressure had been intense, the British had held their own. Delhi had been stormed, Lucknow relieved from all peril of massacre, and the enemy made everywhere to feel that it was hopeless to battle successfully with the English. Now reinforcements were beginning to arrive; the resources of Britain were about to operate; in place of a desperate struggle, the contest would become a triumphant war. The remainder of the forces designed for the China expedition had been stopped and landed, the foremost of the troops sent to India direct were now arriving, the Goorkhas had sent down a division under Pulwan Sing to operate through Goruckpore and

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Jounpore. Azimgurh had been already saved by Venables. Longden with his handful of the 10th had kept the rebels at bay on the borders of Oude, attacked and destroyed the Fort of Atrowlea; and now, on the 30th of October, Wroughton with the Goorkhas under Pulwan Singh attacked and routed the forces of the rebel Nazim at Chanda. The troops as they arrived at Calcutta and were equipped, were hastened on to Cawnpore, and with the exception of the fight of Khujwa, no instance occurred of a rebel force daring to molest them. The British at Saugor were still isolated: a Madras column had reached the Rewah country, which was thereby pacified. Kotah had risen but the Ncemuch force had thrashed the Mundissore mutineers. The Mhow troops had captured the Fort of Dhar. The future victor of Central India had arrived in Bombay, and arrangements were being made for the advance of the three columns, from Madras on Jubbulpore and Saugor; from Mhow, on Jhausie and Calpee; from the westward on Rajpootana.

Meanwhile a column under Greathed left Delhi on the 24th of September, attacked and defeated the rebels under Wullee Dae Khan at Bolandshuhr, and destroyed his Fort of Malaghur. On the 5th they defeated another party of the enemy at Allygurh, and thence turned off the Grand Trunk Road, towards Agra, which was threatened by the Mhow mutineers. On the 10th they reached Agra, and within a few hours, were in a hot contest with the rebel troops. But not an attempt even at a stand did the enemy make. As soon as seen they were charged and routed, and here perhaps occurred the most complete defeat, and most unrelenting pursuit, in the whole war. With Agra thus saved, the little band lost no time in hastening towards Cawnpore, to the relief of Lucknow. They reached Cawnpore on the 26th of October, and there they were halted to form part of a larger force which was to proceed under the immediate command of Sir Colin Campbell to the relief of the beleaguered garrison.

Meanwhile about Delhi, Van Cortlandt had been for some while subduing Hurrinah, and two columns had gone towards Bulbulgurh and Rewalee under Showers to clear the country in that direction, as bands of the mutineers had been reported to be collecting there.

At present, therefore, the work which the Commander-in-Chief had to perform was looking well. There was only one real danger. On the 23rd of September the news of the fall of Delhi reached Scindiah. His joy was so unmistakeable, that the Gwalior Contingent, whom he had hitherto detained near his capital under various pretexts, left his territory to ~~take~~ their fate under another chief. The Tigress Ranee

of Jhansie, and the Nana's General, Tantia Topee, had been offering them high terms. These they now accepted, and under Tantia's leadership, they marched towards the South of Cawnpore, threatening it should the Chief start Lucknow-wards, or in any other way leave it with a weak garrison. Taking Jaloun and Kuchwagurh on their way they reached Calpee on the 15th of November, and thence advanced against Cawnpore, after receiving reinforcements from Banda and Oude.

In spite of these threatening demonstrations on his rear, Sir Colin Campbell pressed forward to the chief aim of his present movements, the relief of Lucknow. On the 12th, he reached the Alum Bagh, and, in accordance with a design submitted by General Outram, he determined on adopting the route by the Dilkhoosha and up the right bank of the Goomtee, which Sir J. Outram had been prevented from taking on the former occasion, by the inundated state of the country. The movement along the right bank of the Goomtee met with opposition from certain officers who were urgent on the crossing of the Goomtee at the Dilkhoosha, and an advance thence up the left bank (by ground which was certainly more open) to a point opposite the Residency, the planting of flanking batteries at the extremities of the works, the construction of a bridge across the Goomtee at the Chutter Munzil, and the removal by it of the garrison. But on mature consideration the Chief adopted and carried out the plan proposed by General Outram. On the 14th, he advanced to the Dilkhoosha, which with the Martiniere was taken with but little opposition. A day's halt occurred to arrange and secure the position there, and the communication with the Alum Bagh.

On the 16th began the final advance to the relief. That advance we need hardly describe in detail. All know it, or ought to know it. We merely wish to point out that its chief characteristic was the pertinacious adherence to the river, completely guarding the right flank, and leaving only the left flank to be watched. All know of the glorious storm of the Secundra Bagh, the capture of the Kuddum Russool and Shah Nujeeb, the evacuation of the Koorsheyd Munzil, the final junction with the Residency troops, the withdrawal of the garrison, the unsurpassably skilful retirement first to the Dilkhoosha, and lastly to the Alum Bagh. But, from what we have read and what we have heard, we are cognisant of one fact, which has not been made so prominent as it should be. Sir Colin has justly and exultingly told how the heroic Peel brought his heavy guns up along side the walls of the Shah Nujeeb; but he has forgotten to narrate that Captain Middleton of the Royal Artillery galloped his guns to within half that distance from

them, to within pistol range of the same walls and the same murderous fire, which taking his guns, the nearest, as the target, laid low half of his officers and men. On the 25th the fire was concentrated at the Alum Bagh, and the 26th was spent in organising a division which was to remain there threatening Lucknow, under Sir James Outram. On the 27th, Sir Colin with the remainder of the force marched towards Cawnpore, and hearing thence the unmistakable sounds of Artillery, but receiving no tidings, rightly conjectured that some untoward event had occurred, and, hurrying the route, reached Cawnpore in two days. It had been attacked by the Gwalior Contingent.

Sir Colin had left General Windham in command, with a force of 500 men, but in case of emergency, he was to get up the troops located at Futtahpore, and to detain the Madras Brigade, and the various detachments which were otherwise to be sent on to the Chief at Lucknow. He was directed to protect the entrenchments and the bridge, not to attack the enemy, but to daunt them by making as great a display of his force as possible, encamping them outside, so as to guard the city. The enemy however had accurate information of his real strength, and they displayed more Generalship than on any other occasion. They took full advantage of their numerical superiority to out-flank, and threaten him from several points. They approached Cawnpore simultaneously from the West and South. General Windham's original wish was to attack the enemy in detail, the westernmost detachments first, as they were on his own side of the Pandoo Nuddy.

He had written for permission to the Chief, from whom, however, no answer on the subject ever came, whilst such letters as were received tended to the supposition that the Chief was himself in difficulties, or that at any rate he wanted reinforcements, and would not return for some time to come. He consequently did not consider himself authorized to attack the detachments contrary to the original orders, and determined on carrying out the tactics of the arrangements ordered by the Chief, modifying the details in their execution. His plan was to defend the passage of the Pandoo Nuddy, and checking the enemy there, to fall back and cover Cawnpore at the Grand Trunk Road. On the 26th November accordingly he advanced to the North bank of the Pandoo Nuddy, where he found the advanced detachment of the enemy strongly posted on the opposite side. The action was short and decisive; the British dashed across the Nullah with a cheer, the enemy fled precipitately, and three guns were taken. The victory being won, he immediately retired to the position he had decided on for protecting the South and West of Cawnpore. Unchecked by the

defeat, the enemy followed up, and on the next day attacked the British position, out-flanking it on both flanks. The rebel force, however, was being steadily repulsed, when the General was informed that the enemy were penetrating the city, threatening the Fort and his rear. Hastening himself to the new scene of action, Windham led a recently arrived party of rifles against the flank attack, and drove it back, but warned by the attempt of the probable recurrence and ultimate success of the attack on his communications, he directed the advanced parties which had been left on the South and West of the city, under the command of General Dupuis, to retire to the North of the city. He now therefore took up a more concentrated position, between the fort and the city, flanking the entrenchments on both sides, and defending the canal and the Bithoor road.

On the 28th the enemy attacked from both flanks. The attack on the left resulted in a complete victory for the British, who captured two 18-pounders. On the right the attack was made in overwhelming numbers, and the British advanced posts, on the Bithoor road, had to retire. At this crisis, Sir Colin arrived. No time was lost. Heavy guns were immediately posted to take in flank any batteries that the enemy might have established against the bridge, and a Brigade moved up to the left of the canal, to the S. E. corner of the city; thus the entrenchments were thoroughly secured and the communications with Allahabad re-opened; the city alone was left to the enemy; and both their flanks were threatened. Despatching the Lucknow families towards Allahabad on the 3rd of December, he completed his arrangements on the 4th and 5th; and on the 6th he attacked the enemy. Commencing with a heavy bombardment from the entrenchments, he advanced against the enemy's right, driving them before him, and routing them along the Calpee road. • Keeping the Cavalry and Light Artillery for the pursuit in that direction, he turned his main force under General Mansfield against the enemy's left, who were similarly routed, and fled to Bithoor. Seventeen guns were taken. The right division of the enemy having been hopelessly driven across the Jumna, General Grant was sent in pursuit of the Bithoor party, and caught them in the act of crossing the river. The result was the thorough rout of the enemy with great slaughter and the capture of fifteen more guns.

*For the thorough organisation and security of the base of future operations, all that now remained was to clear the Grand Trunk Road. A force under Walpole was despatched up the left bank of the Jumna; another under the direct command of the Chief advanced against Futteghur, while Seaton came Southwards from Delhi and Allygurh, with a large convoy.

Walpole's column met with no opposition at all, and on the 20th of January, with Seaton's force, joined the Commander-in-Chief. Sir Colin had occupied Futteghur having defeated the enemy with great slaughter, and the loss of 12 guns, at the Kala Nuddy, where they had attempted to dispute his passage towards Futteghur. Brigadier Seaton had fought one of the most brilliant little campaigns on record. Marching from Delhi to join the Chief, and advancing to clear the road, before he would encumber himself with the convoy, he beat the enemy first at Kha-gunge, and then at Puttialce where fourteen guns were captured, and the enemy pursued for miles and slain in hundreds.

Leaving Sir Colin thus free to act and strike ad libitum, let us review the events occurring elsewhere.

Towards Central India, the Kamptee moveable column, which had relieved Dumoh at the end of August, was protecting the Jubbulpore country. Whitlock and Rose were on the point of commencing their triumphant marches to Saugor and Jhansie. Rajpootana was held by Roberts, and the friendly aid of the Native Chiefs.

Goruckpore was still in the hands of the rebels, but Jung Bahadoor had reached Segowlic on the march which ended at Lucknow, while Brigadier General Franks was advancing his field force to the frontiers of Oude, and Rowcroft on the Gogra had defeated the rebel Nazims.

More and more regiments were landing in Calcutta.

Lawrence was developing in the Punjab a fertility in its martial resources, of which none but he had been cognisant, and a force under Chamberlain was being prepared there to operate from the North West on Rohilcund.

General Outram, at Alum Bagh, menacing Lucknow, unmistakeably demonstrating that the British Government would not yield up their footing in Oude, had hopelessly repulsed the fiercest attacks of the myriads of the insurgent horde; and the rebel Government, realizing the ultimate certainty of the British advance against Lucknow, had strenuously commenced to fortify it. Hence there were now two lines of tactics open to the Chief. One was to advance from the Trunk Road, converging from all directions on Lucknow, clearing, pacifying, and securing our old provinces, and striking the last and overwhelming blow at Lucknow; the other was to commence operations by first attacking Lucknow while its defensive works were incomplete, and then, diverging from it as a centre, radiate towards the posts already held by the British, securing the country as the columns advanced, dispersing the rebels, and re-establishing the police. We think that with the mass of troops at the disposal of the

Chief, the former would have been the sounder policy. And the first movements of Sir Colin Campbell induce us to believe that such was his own opinion, but that he was overruled by some higher power who directed that the attack on Lucknow should be the initiatory movement. Our means of knowing the motives for adopting this line are as yet mere conjectures, but it is possible that it was deemed essential for the success of the project which was rejected, that the Corps which were being organised in the Punjab, and the forces on their way through Central India, should form part of the converging columns, while it was clear that their presence on the scene of action could not possibly occur, till a date so remote as to render the project quite impracticable. We conjecture also that it was considered unadvisable to adopt a line of tactics by which the enemy should be driven to despair, and forced to fight, in a position in which they could not be reached without frightful loss to the assailants.

We believe that it was the conflict of opinions on the course that was to be adopted, the lateness in deciding on Lucknow as the first great point of attack, and the time necessarily occupied in organising the Siege Train, that delayed the campaign. But whoever or whatever may have caused the delay, we are unable to perceive the reason for the inactivity of the greater part of the troops during February and March. On the 3rd of January Sir Colin fought the action at the Kala Nuddy. It was not until the 4th of March that he began to besiege Lucknow. But while the Commander-in-Chief and the troops with him were thus waiting passively for the completion of the grand preparations, his lieutenants and allies were not idle.

We have already mentioned the repulse that Outram gave to his assailants from Lucknow on the 22d of December. He taught them a still more severe lesson on the 12th of January. Daunted by the handling they received on these two occasions, the enemy troubled him for some time with only insignificant attacks, until the contemptuous exhortations of the Begum, and their knowledge of the storm that was brewing for them, led them to make two desperate attacks on the 21st and 25th of February, which were of course as unsuccessful as before. Sir James now began to be reinforced, the Artillery and Engineer parks began to arrive, and the British very soon took the aggressive.

Jung Bahadoor marching from Segowlie, cleared Goruckpore almost without a blow, and advanced to the Gogra, defeating the mutineers on the 5th of February. The passage of the Gogra was not effected without difficulty; but once effected, the onward progress was easy; Franks had driven the foe from the

point. Rowcroft and Sotheby gallantly held the line of the Gogra with their small detachments, and twice defeated the enemy at Chandepore on the 17th of February, and at Phoolpore on the 25th of February.

General Franks for two months ably held the frontier of Oude from the Gogra to the Ganges. Dividing his force into three Brigades, he posted them respectively, the right in front of Azingurh, the centre on the Goomtee before Jounpore, and the left between the Goomtee and Allahabad, threatening the enemy on all points, and, by his manœuvring, thwarting their design of raising the Benares district. On the approach of Jung Bahadoor to the Gogra, taking advantage of Rowcroft's presence there, he moved his whole force to the left, and with his left Brigade attacked the enemy's rightmost detachments. These had been troubling the neighbourhood of Allahabad, and threatening to inundate the country between it and Benares. The enemy occupied a position in the strong fort of Nusrutpore; but on the approach of their dreaded foe, on the first signs of the movement on their flanks, and under the pressure of a heavy fire of Artillery, they were routed with great loss, and fled to the central detachments. The enemy were now concentrating on Franks' centre, determined to oppose the expected invasion. Mahomed Hussein, defeated by Jung Bahadoor, had collected his force at Sultanpore; the insurgent talookdars occupied the South of the road, hoping to attack the British in flank on their advance. Mendee Hussein, the ruler nominated by the rebel government, occupied the Fort of Chanda, on the direct route. Quietly the General made his preparations; as yet, he was unable to stir; he had been directed on no account to cross the frontier. He and the Goorkhas under Jung Bahadoor, were to make a simultaneous sweep through Eastern Oude, but the Goorkha leader was late and General Franks was let loose. He was directed to advance on Lucknow. The unsuspecting enemy were still divided between Chanda in front, and Waree towards the left of the British. Franks suddenly marched on Mendee Hussein at Chanda, on the morning of the 19th of February, and the cannonade first told the Waree Chiefs of the British advance. Driving the foe out of Chanda, and routing them hopelessly, with the loss of six guns, along the Goomtee, Franks faced towards Waree. His move was perfectly timed. The enemy's advanced patrols were soon seen, but they retired more speedily than they had advanced; and the British slept on the field of battle. Twenty miles in front was the pass of Badhayan; to secure this was all-important. Threatening an attack on Waree, and directing the collection of supplies at Sumbooa eight miles off, he started on the morning of the 19th, and marching without a halt and

leaving Sumbooa far behind, seized the pass. On hearing of Franks' march to Sumbooa, the enemy had also left Waree, and pressed forward for Badhayan, but they arrived, only in time to find it already occupied by the British. Here he collected his force, and prepared for his final attack on the enemy who were now concentrated, with a force of 25,000 men and 23 guns, at Sultanpore. Their position was strong, behind a Nullah which could not be crossed in their neighbourhood, and their left protected by the Goomtee. In the front were groves innumerable. The General had few Cavalry, but with these he managed to drive in the advanced picquets, disconcert the enemy, and draw off their attention. Strengthening the Cavalry with a small detachment, he led his main force far up the left, across the ravine where passable; and while doing so, remained unperceived by reason of the groves. A shell bursting in the midst of the right flank was about the first intimation the enemy received of the real British attack. The assault and the defeat were simultaneous. The Cavalry and two horsed guns alone escaped unscathed. The rest were cut off. The ravines and the river were their only resource. On pressed the British skirmishers and guns. The Enfield fire and the shrapnel told heavily on the retiring foe, who became gradually lost amongst the endless ravines; 21 out of the 23 guns were captured. The victory was complete. Not a foe dared to dispute the way: the front of Jung Bahadoor's march was also cleared.

While the British forces were thus pouring through the land of Oude, Central India was offering Sir Hugh Rose a field for a career of victory, to which scarce a parallel can be found. Arriving in Bombay in October, he had been for two months organising a force at Mhow, with which to operate towards the Jumna. He had succeeded in collecting a thoroughly complete and efficient division. This he divided into two brigades. His first care was to proceed to Indore with his whole force, and re-establish Holkar's authority in its normal strength. From Mhow he determined to advance in two columns. The left, which was formed by the 1st Brigade, was to clear the Grand Trunk Road towards Agra; the other to operate to the right, towards Saugor, under the immediate command of the General. The left column duly advanced as far as Goona, while Sir Hugh Rose, pushing on Eastwards, disarmed the Bhopal Contingent at Sehore, occupied Ratgurrh on the 18th of January, and on the 3rd of February relieved the beleaguered garrison of Saugor. There was a direct road to Jhansie, the first great point of operation. But then would have remained on his right flank and rear the almost impregnable fort of Garacota, which a British

force of 11,000 men, with 28 siege guns, had been unable to reduce in 1818. By the fierceness and rapidity of his operations he had already struck terror into the foe.

Advancing now in two forced marches to the stronghold, he drove in the enemy's advanced parties, and rapidly took the first steps towards an investment. Terror-struck at these signs, they evacuated the fort. Seizing it, and leaving a party under Major Boileau to demolish it, and weaken it as far as possible, he returned to Saugor, urged on the equipment of the Siege Train for the expected operations against Jhansie, and despatched Major Orr, with the Hyderabad Cavalry on an extensive reconnaissance. From him he learnt that the flank of the first brigade would be threatened on its direct march to Jhansie by the Fort of Chandeyree; that on his own road there was most impracticable ground, especially on the border of the Shahghur and Saugor districts, where all the passes but one were strongly fortified and occupied in force. He directed the advance of the first Brigade on Chandeyree, which it subsequently stormed on the 17th of March. Sir Hugh Rose starting from Saugor on the 27th of February, feigned to advance against the fortified passes, concentrating the enemy's attention there by a false advance with a party under Major Scudamore, while his main column dashed through the neglected route by Mundisore, turned the line of the enemy's defences, and took the forts of Serai and Marowra: with these passes turned, Sir Hugh advanced on Jhansie, and directed the first Brigade, after taking Chandeyree, to converge thither also, so that he might attack it with the full strength of his division.

We will leave the Central India field force at this stage of its career, and turn to the point to which the eyes of all India were now directed—the operations against Lucknow. Very perfect information had been received by Sir James Outram of the designs and defensive works of the enemy. Calculating on the British force first clearing its old districts, the Oude rebels had designed to envelop the whole city in a line of ramparts, which were to have extended along the canal on the South and East, the river on the North, and the boundary of the city on the West. This was of course faulty on the principle that all continuous lines are faulty, from the extent of front requiring defence, the consequent difficulty of opposing a powerful surprise or assault on one point, while if one point is forced the whole is in vain. But on the advance of the British, a portion only of the canal works had been completed. A second and interior line was commenced, following the outline of the palatial buildings to the East and North of the Kaiser Bagh, but of this line also, only two north walls were finished, viz., the East front of the block of build-

ings at the Begum's Kotee, and a line running from the Emain-hara to the river's edge outside the Motee Mahul. In fact, of these two lines of entrenchments, only the portions perpendicular to the river were complete. The Kaiser Bagh was also to be considered the citadel, and was to have a square of ramparts surrounding it, but the North face alone was finished.

Hence there could be little difficulty in deciding on the plan of operations, and there appears to have been but one mind regarding it. The left flank of these two lines must be turned by an advance along the left bank of the Goomtee. The buildings leading to the East, the unprotected face of the Kaiser Bagh, were to be pierced and stormed in succession, when an entrance into the Kaiser Bagh, could be easily effected.

On the 4th of March, General Franks' arrival placed at Sir Colin's disposal the complement of troops required for the completion of the position which the attacking troops were to occupy. On the same day the bridge by which the flanking division was to cross the Goomtee was constructed. On the 6th the passage was effected. General Outram commanded. On the 9th the Martiniere was stormed, and General Outram having advanced, and enfiladed the outer line of entrenchments, they were the next day evacuated by the enemy and occupied by the British. On the 11th, the whole force advanced; General Outram to the Badshah Bagh and thence to the Iron Bridge, where the second line of Ramparts was taken in reverse; the right of the main column occupying the Secundra Bagh, the Kuddum Russool, and Shah Nujeeb; the left storming the Begum's Kotee, the first of the palatial buildings which covered the Kaiser Bagh. On this day also Jung Bahadur arrived, and his troops, being placed between the Chief and the Alum Bagh, completed the line of advance that was thus to sweep the whole breadth of the city of Lucknow. On the 12th and 13th, the advance was continued through the buildings covering the Kaiser Bagh, up to the Imambarah. This was to be stormed on the next day. A breach was being duly effected in its walls, and a storming party was organised for the assault. It was designed that this should be succeeded by due preparations, and a final and overwhelming attack on the Kaiser Bagh, which the Highlanders were to storm, but that honor was denied them. As the breach in the Imambarah was becoming practicable, Brasyer's Seikhs could not be restrained, and with a cheer dashed forward to the attack. The enemy fled precipitately, the Seikhs clung to their heels, followed them into the entrance courts of the Kaiser Bagh, and seized them; some rushing to the roofs poured a musketry fire on the foe within, while a few, headed by Major Havelock, dashed into the bastions to the right, and turned their own guns on the waver-

ing foe outside. General Franks rapidly pushed forward reinforcements, and the Kaiser Bagh, the citadel, was won. Next day Outram crossed the Iron Bridge, effected a junction with the main column, and captured the posts near the old Residency entrenchments. For the next three days the column went sweeping through the whole breadth of the city, and on the 18th had occupied the whole of it save the suburbs of the Moosa Bagh. Here was to be the final coup: Sir Colin's design was perfect, and one terrific blow, a crushing pursuit with the whole strength of the Cavalry, threatened the rebel band. General Grant was sent with half the Cavalry to the left bank of the Goomtee, to prevent the escape of the enemy in that direction. The Infantry was to press forward along the main road up the right bank of the river, the remainder of the Cavalry under Brigadier Campbell was to operate from the left flank, from the Alum Bagh direction, and was to charge and pursue the foe, keeping them from dispersing to the South. On the 19th the force advanced, the Infantry drove the enemy out of the Moosa Bagh; Sir Hope Grant duly guarded the passage of the Goomtee, but the foe retired unmolested, retired to harass the wearied troops during the many long, tedious, broiling months of the hot weather that was rapidly approaching. Brigadier Campbell was nowhere to be seen. His absence was officially attributed to his having lost his way. But his error appears to have savoured of wilfulness. He moved his force in utter disregard of the statements of his guides, in opposition to the protestations and explanations of all to whose information and advice he was bound to listen. But whatever may have been the cause of his erratic proceedings, whether they were accidental or whether they were worthy of blame, we believe that the mischief which resulted from them was incalculable; that to them is attributable such organization as the enemy were enabled to maintain, and the perseverance and pertinacity with which they still carried on a guerilla warfare with the British.

With Lucknow once taken, there was no time lost in immediate preparations for securing its possession by the construction of an efficient fort. The Chief Engineer selected the site of the Mutchi Bhawn, and the trace of the work embraced that building and the large Imambarah, and was carried down to the river's edge, thus securing complete command and possession of the stone bridge. A line of defences was also constructed on the basis of the old Residency entrenchments, continued however so as to command the Iron bridge. Lines of broad roads were also laid out connecting these two works to one another, and to the most important military points of the city, such as the Char Bagh bridge. These works were unremittingly carried on, un-

til their completion set free the services of some 6,000 men who would otherwise have been required for the occupation of the city, but whom the Chief could now dispose of for other purposes.

With these defences, and an expedition of Sir Hope Grant in the direction of Seetapore, and the operations for the capture of Lucknow. The enemy driven out of the city retired chiefly in two directions, towards Rohilcund, and towards the North of Oude, where they gradually separated into parties detached over the whole length and breadth of the province.

The concentration of the troops at Lucknow had led to desperate attempts on the part of the enemy to create a diversion by attacks on the districts which were denuded of troops. The whole line of the Grand Trunk Road, and that of the Jounpore and Goruckpore frontiers, were again threatened; but the most serious disturbance was towards Azimgurh. Here the small force, left for the protection of the district, had been compelled to confine itself to the city; and a party which went to their relief from Benares was nearly equally hard pushed. A strong force was accordingly despatched thither from Lucknow, under General Lugard, whilst the advance of the Ghoorka force towards Fyzabad, on their route back to their own land, would, it was expected, ease Brigadier Rowcroft, who was strongly pressed on the Gogra. On the 11th General Lugard encountered a strong force of the enemy near Jounpore, and defeated them with the loss of their guns. On the 15th, he drove them out of Azimgurh, again capturing all their guns. No rest was given to the enemy. A pursuing column had been organised under Brigadier Douglas, who unrelentingly pursued the foe, turned their retreat into a precipitate flight, and chased them to the banks of the river, which, however, the principal object of pursuit, Koer Singh, was enabled to cross, by means of boats kept ready for him by retainers whom he had left there. In the pursuit five more guns and thirty elephants were taken.

The advance of the enemy towards the Doab and Grand Trunk Road had been defeated by Seaton and Showers at Kharkhur on the Ganges opposite Futteghur, and at Pinahut on the Chumbul, South of Agra. These fights were on the 8th and 13th of March.

Lugard's division having been given the duty of tranquillizing the old provinces to the East of Oude, it remained for the Chief to reconquer Rohilcund, the only other portion of our trans-Ganges districts in which the enemy were in force. The project for this campaign was a combined movement of three forces converging on Bareilly; Walpole's division was to advance from Lucknow via Shajehanpore; General Penny was to cross

the Ganges at Nudowlee, and marching through the Budaon district, join Walpole at Meranpore Kutra, on which Sir Colin would take the command of the force; while Brigadier General Jones was to sweep southwards from Roorkee, through Moradabad. All these parties met with strong opposition.

Penny's force, immediately after the passage of the Ganges, was surprised at Kukerowlee, on the 30th of April, and the General was killed, but the enemy were defeated and the desired junction at Meranpore Kutra was effected.

General Walpole's force was unmolested until it reached the neighbourhood of Khodamow, where Nirput Singh, a rebel Chief, threatened the column from his fort of Roya. In an attempt to storm the place, the British suffered severely, and it was not entered until after the interval of a night, during which it had been evacuated by the enemy. Walpole advancing towards Shajehanpore, again encountered the enemy at Sirsie, where turning their left, he defeated them with great slaughter, capturing their Artillery. On the 25th he was joined by the Commander-in-Chief who had operated from Futtehghur, and the force advanced on Bareilly, through Shajehanpore, where a detachment was left; and on reaching Meranpore Kutra, was joined by General Penny's force, now under command of Brigadier Jones of the Carabineers.

Meanwhile Brigadier General Jones of the 60th Rifles had initiated a most brilliant little campaign. On the 17th of April crossing the Ganges at Khankhul, opposite Hurdwar, he found the enemy prepared to receive him; turning their left, he drove them out of the Terai, then let loose the Cavalry, and pursuing the foe with great slaughter, captured all their Artillery, and allowing them no halt, caused the evacuation of the fort of Futtehghurh near Nujeebabad. On the 21st, he advanced to Nujeeinah, and crossed the canal, and, by his speed, surprised the enemy, and thwarted them in their attempt to take up the position which they had evidently intended to occupy, but for which they were too late. They drew up fronting the town of Nujeeinah, with a canal in their own front, their left resting on a bridge over it, their right in a tope, and the whole line at an angle with the canal. At the passage of the road over the canal was a second bridge; against this, five guns were planted. Leaving the first Seikhs to sweep down the right, (the British right) of the canal, the guns covering the bridge were charged by the main column and taken, the force pressed to the left, and attacking the enemy's right, and turning it, changed front to the right, sweeping down the enemy's line, towards the canal, and cutting off their communications with the town of Nujeeinah. The junction of the Seikhs, and the capture of the guns at the bridge

on the enemy's left, completed the victory; 15 guns were taken, and the enemy were scattered to the winds. His progress was then almost unmolested. Bijnore was re-occupied, and Feroze Shah, who had defeated the troops of the friendly Rajah of Rampore, was cowed into evacuating Moradabad, which he had originally designed to defend, but which the British now entered without opposition. On the 5th and 6th of May, the Chief and General Jones approached and entered Bareilly from opposite sides, not without meeting strong opposition, but, of course, hopelessly defeating the enemy. The advance of the Chief had left the little garrison at Shahjehanpore exposed to the attack of those parties of the enemy which had been hovering on the flanks of the main column, and which took advantage of its attention being occupied with Bareilly to threaten Shahjehanpore in force. The garrison retired into the jail, and was invested. General Jones was sent to its relief. On the 11th of May he approached the city. Concentrating his column towards the bridge of boats, he swept the whole of its vicinity with his Artillery, and poured a fire of shells on the neighbouring fort and buildings for two hours; leading to an unmolested passage of the bridge, and through the city. On debouching from the city, the enemy, whose chief strength lay in Cavalry, shewed signs of accepting the challenge to combat, but the Artillery and the Enfields of the skirmishers caused them to retreat to Mohumdee. Shahjehanpore was thus relieved. On the 18th, Jones was joined by the Chief, and was then despatched to operate against the stronghold of Mohumdec. Repulsing a body of the enemy on the 14th, he pushed on in pursuit, and next day entered the fort, driving the rebel force to the other side of the Goomtee. Thus ended the campaign of Rohilcund, resulting in the pacific re-occupation of the old districts of the North West. In Goruckpore, Rowcroft had gained two decisive victories over the enemy at Amorha on the 17th of April, and at Nuggur near Bustec on the 29th. To the North of the Ganges, all was now in the hands of the Civil officers save the newly acquired province of Oude.

In Central India, Sir Hugh Rose was gloriously vindicating the British cause. We left him about to concentrate on Jhansi. He arrived before it with the 2nd Brigade on the 21st of March. On the 25th the 1st Brigade joined him from Chandeyree, which fort it had stormed on the 17th. His first and immediate step was to surround the place with small camps of Cavalry. A semaphore was also erected on a commanding mound, whence the movements of the enemy could be signalled through the whole camp. Having made a thorough reconnaissance he decided thus. The fort was impregnable on the West. On the

other two, and part of the South front, it was surrounded by the city. The city wall started from the middle of the South front, and ran at right angles to it until it reached a mound, whence it circled away to the East. Hence the South face of the fort, and the East face of the city, flanked each other, while at the mound mentioned, a bastion flanked the East and South faces of the city, where also the palace was located. The mound therefore was to be the chief point of attack. Two ridges lying near the cantonments to the South, afforded natural sites for the operations of the right and left attacks. On these, batteries were duly placed. The main objects of the batteries were

1st. To shell the bastion, and South face of the city.

2nd. To enfilade the South face of the city.

3rd. To breach the South face of the city near the bastion.

4th. To dismantle the commanding works of the fort, and to shell it.

On the 25th, the first batteries opened fire. The results were perfectly successful, excepting that it became evident, that the breaches would be practicable only for escalade. For an escalade therefore all the preparations were made, and it was to have been carried out on the 30th of March, but the approach of a relieving force, under the command of Tantia Topee, from across the Betwa, necessitated that it should be deferred until this army had been discomfited. On the 1st of April Sir Hugh Rose routed it; on the 3rd, he stormed Jhansie. The city was carried by escalade at the mound, and at the breach in the South face, and the palace was immediately afterwards attacked and captured; with the loss of the palace the enemy knew that their case was hopeless. There was a universal flight from city and fort. The outlying and surrounding Cavalry camps here came into play. The pursuit and interruption of fugitives was unceasing. But the Ranees effected her escape, and fled to the North East.

Thus was struck the greatest blow that could be felt in Central India. An immediate pursuit towards Calpee, would have been a fitting termination to the campaign, but it was not feasible. The force was isolated. To secure the territory through which it had passed was essential to the permanent benefit of the deeds which had been done. The co-operation of the Rajpootana and Madras columns was necessary. Hence General Rose was detained for some three weeks at Jhansie, but during this period he employed his Cavalry under Gall and Orr in reconnoitering the country on both sides of the Betwa, on the road to Koonch and Calpee; and in the course of these reconnaissances, many a brilliant skirmish was fought, and the fort of

Loharee was stormed. To cover Sir Hugh's left, and to protect Jhansie from Kotah and Bundelcund, Brigadier Smith advanced from Rajpootana to Goona. The right had been always tolerably protected. General Whitlock's Brigade, which had, as already mentioned, relieved Dumoh, had held the Jubulpore districts throughout the crisis. After the fall of Jhansie, Whitlock had advanced, and defeating the enemy first at Jeeghun near Sojaneer in the Chutterpore district of Bundelcund, had fought an action with the Banda Nawab in front of his own city, and routing him with great slaughter, had recaptured Banda on the 19th of April. The whole rebel force was now concentrated near Calpee, and now that Brigadier Smith was approaching Goona, General Rose had instructions conveyed to Whitlock to move his 2nd Brigade to the left to Mhow, a town to the East of Jhansie, thus better protecting the right of his own advance to Calpee, and also the rear of General Whitlock's position. These arrangements being completed, Sir Hugh would not wait for his reinforcements, but started against Calpee on the 25th of April. On the Jhansie side of Calpee was the town of Koonch. Here the enemy determined on making their first stand, and threw up strong entrenchments. These in the usual manner were nullified by a flank movement. Sir Hugh Rose turning their right, swept down the line of defences, and through the town, and halting his Infantry there, sent the Artillery and Cavalry in pursuit towards Calpee.

As soon as his men were sufficiently rested, Sir Hugh hastened to follow up the enemy. On the 15th of May, the first Brigade was before Calpee; the second Brigade was kept moveable at Etawah 5 miles off until the 19th, when it joined the 1st Brigade and the force became concentrated, Maxwell's Brigade from Cawnpore co-operated from the left bank of the Jumna; and in order that the combination might be more effective, the position taken by Rose's Force was not to the South, but to the East of Calpee, its right resting on the river. By this position, however, the communication with the rear was cut off, and the road to Jaloun and the West was open to the enemy.

The rebels were bolder and more skilful than hitherto. They threw up a series of entrenchments in which they took good advantage of the features of the ground. But the opening of the batteries on the 18th, and the vertical fire, caused their evacuation. On the 22nd, they made a most fierce and desperate attack on the right of the British. For five hours there was almost a hand to hand struggle, and the enemy did at last break through the Infantry, and come at the guns. But they were too late. The camel corps had arrived that instant; and dismounting and

forming line, the rifles dashed with a cheer at the charging foe, and drove them back headlong over the ground by which they had advanced. The 3rd Cavalry at the same time charging up, with Sir Hugh at their head, ended the contest. The enemy re-entered Calpee thoroughly beaten. They were now hopeless; and before next morning the Ranee and her companions were evacuating Calpee. That morning the advance on the enemy's position was made. Such of the foe as attempted to hold it were driven out, and the rout was more thorough, the pursuit more unrelenting, than any that had occurred during the war.

Thus fell Calpee on the 23rd of May, and the fall had been looked forward to as the last blow of the campaign; but the struggle was not yet over. The enemy had one more card to play. Though Scindia was known to be resolute in his adherence to the British cause, it was equally well known that the sympathies of his military followers were with the rebels. Tantia Topee had been for long working a band of emissaries, and undermining the fidelity of the Gwalior men to their Chief; in fact it is now known to be more than probable that he had himself been for some time in disguise at Gwalior, personally conducting the intrigue. To march on Gwalior, to seize the fort, with or without Scindia's co-operation, to raise the Mahratta country, on the pretext of its allegiance to a higher than Scindia, the Peshwa—such was the project devised by the Jhansie Ranee and Tantia Topee.

On the 1st of June, the fugitive force reached the neighbourhood of Gwalior, and called on Scindia to join them; on his refusal, they advanced on his fort and capital. Scindia gallantly drew out his forces in line of battle to oppose them, but Tantia's emissaries had done their work. The hostile array of the Gwalior troops was a mockery. Firing over the heads of the advancing enemy, they at last threw down their arms, and rushed with a welcome to their Calpee brethren. The fraternization was complete. Scindia fled with a faithful few of his Body Guard to Agra.

Immediately after the fall of Calpee, a pursuing column under Colonel Robertson had been sent after the fugitives, and had followed them up to Indorkee. The great part of the Central India force was to have followed in due time, when Whitlock should have occupied Calpee, but the news of the defection of the Gwalior troops hastened matters. A concentration from three sides was directed. Rose hastened with his force from the East, Brigadier Smith with his portion of the Rajpootana force, was ordered up from Goona, by the main road from the South, while troops from Agra were to co-operate from the North. On reaching Gwalior, Scindia joined Sir Hugh Rose's force. On

the 16th of June, the forces were before Gwalior. Smith had driven in the advanced party on the Bombay road, Rose had defeated the main force of the enemy at the cantonments which he now occupied, and the Hussars coming on the enemy's camp rode through and through, inflicting a crushing lesson. On the 18th, the advance was made. It was a triumphal march. The enemy made no fight. The Jhansio Rancee was killed. Gun after gun, battery after battery, were taken with a cheer. Scindia was reinstated in his palace. The fort was found evacuated. On the 19th, Napier was off in pursuit. On the 21st, with a small body of Cavalry, and a troop of Artillery, he came on the enemy 10,000 strong with 25 guns, drawn up to oppose him at Joura. There was no delay or hesitation. With a charge at the flank, the little force were on the foe; the Artillery poured in a smothering fire enfilading their line; the enemy wavered; down swept the Cavalry at full speed, and the foe broke and fled in frantic rout. The energy of the pursuit and of the slaughter was without parallel. It surpassed Agra and Calpee. The whole of the enemy's Artillery was taken. This ended the campaign. The remnant of the rebels fled towards Rajpootana, where they have ever since been hunted ruthlessly by Roberts' detachments.

As these pursuits, though harassing to the troops employed, cannot be considered as any longer playing an important part in the war, or exercising any influence on the struggles carried on elsewhere, we will anticipate events and at once conclude the subject of the Central India Campaign, by briefly showing the wanderings of the fugitive rebels, and the measures adopted for their discomfiture. On the 27th of June, the enemy were at Hindown, half way between Gwalior and Jeypore; there they separated into several parties, some to the North and South, but the largest portion under Tantia Topee struck towards Jeypore to the West. General Roberts had however marched from Nusseerabad towards that city; and therefore on nearing it and hearing of his approach, the enemy fled Southwards towards Tonk. This town they plundered, and besieged its Chief in his fort of Ramgurh. On hearing, however, of the advance of Holmes, who had been detached with Roberts' Cavalry in pursuit, they raised the siege on the 9th of July, fled Eastwards to the Chumbul, and then moved up its banks Southwards towards Oodeypore.

On this the second Brigade at Neemuch moved North, and heading the rebels, enabled Roberts to catch and defeat them twice, first at Saujaneer on the 8th of August, and next at Kohaleea on the 14th of August. Thus checked to the South, they fled to the East, and attacking the Chief of Jhalra Puttun, seized his fort and guns on the 27th of August. Threatened

from the East by Brigadier Smith and from the West by General Roberts, Tantia struck South to Oojein. Here within two marches of Indore, he was met on the 13th of September, by General Michell from Mhow, and defeated with the loss of all his guns, some 26 or 30. Beating up North East, he passed Brigadier Smith, and captured the fort of Esagurh. Here he was hemmed in by three forces; struggling to break through, he was again twice defeated by Michell, on the 10th and 19th of October; till hopeless of gaining his object of penetrating the Deccan he turned to the North, hid himself for a time in the deserts of Bikaneer, and then in disguise and with a very small body of followers fled to the Chundeyree jungles on the Western frontier of Bundelcund, where he is now supposed to be.

The rebels who had been defeated by Lugard at Azimgurh, and chased to the Ganges by Douglas, having successfully crossed the river, created much alarm under Koer Singh's leadership at Shahabad and the neighbourhood of the Trunk Road; but the most ordinary arrangements successfully drove them out of their vaunted jungles, and cleared the districts. Koer Singh's death not a little aided the pacific solution of any difficulties that existed there.

Oude alone was left to be dealt with by the Commander-in-Chief. It was full of an insurgent and warlike population, who held the whole country, but the chief forces of the enemy were a party to the North West, under men who were attached to the Delhi and fanatic Mussulman cause; to the North East under the Nana and the Begun; and to the South East under the Oude Talookdars. The leading political spirit among the Hindoos of Oude, Man Singh, had tendered his allegiance, and was now besieged at Fyzabad by a rebel force.

To secure the country near Lucknow, and between it and Cawnpore, was the Chief's first care. Accordingly General Grant was despatched first on the Sectapore road; where he defeated the Fyzabad Moulvie on the 13th of April at Baree. He then cleared the right of the Lucknow and Cawnpore road, taking the fort of Doondea Khera on the 10th of May, and defeating the forces under Bence Madho on the 12th, at Sirsee, thus quieted the Oonao district. He then returned to Lucknow, and proceeded to strike at the only remaining body of the enemy who troubled the neighbourhood. These were posted at Nawabgunge, two marches from Lucknow on the Fyzabad road. Placing an advanced detachment under Colonel Purnell at Chinhut to watch their proceedings, General Grant gradually assembled a strong force there, and on the night of the 12th of June, advanced against the enemy. Their position was strong; they were more desperate than hitherto, and they were ably commanded. But the consummate

courage and determination of the British, rather than any strategy, carried all before them. The enemy repeatedly endeavored to turn the flanks, but were repulsed with heavy loss. The British charged the guns. The Ghazees stood firm to the shock, and were killed to a man. Finally by sheer superiority of fire and of courage, the British drove the enemy off the field, with great slaughter and the loss of all their guns.

Thus clearing the districts in the immediate neighbourhood of Lucknow, and placing detachments on the various roads round it, Sir Hope Grant proceeded to the relief of Fyzabad. On his progress he secured and garrisoned Durriabad, and posted corps at various points on the road, especially at Nawabgunge, a large village where the roads diverge to Fyzabad and the North East. By the beginning of August Man Singh was relieved, and the rebels retired to Sultanpore, the scene of Franks' victory. Horsford pursued the enemy to the banks of the Goomtee, but was unable to cross it from want of boats. Moving troops Eastwards from Lucknow, Grant sent reinforcements to Horsford on the 16th and 19th of August, and joined him personally on the 22nd. Boats still being unprocurable, he determined on crossing the river without them. The Artillery being posted so as to clear the site of the passage, the troops began to cross on the 25th, and on the 27th of August the whole force was on the right bank of the Goomtee. On the 28th Grant defeated the enemy. The next day the district was clear.

The diminution of troops, and their withdrawal to the East, caused the enemy to threaten Lucknow from the West. On which Eveleigh, leaving his camp at Nawabgunge, twice defeated them at Mohan, on the 4th and 8th of August. On Grant's departure from Fyzabad, the enemy threatened, from the North, the post between it and Lucknow, Durriabad; but Chamier first defeated the insurgent talookdars at Rudowlee on the 31st of August; on the 18th of September Major Hume advancing to the Gogra routed a large force which was attempting to cross; and again, on the 6th of October, drove back two detachments which were endeavoring to repeat the attempt.

While Sir Hope Grant thus formed a cordon from Lucknow to Fyzabad, and thence to Sultanpore, Brigadier Berkeley was taking the first steps towards completing the portion wanting of the circle, by closing in between Allahabad and Sultanpore. The point of the wedge had been long driven in at Soraon, and at length, in the middle of July, advancing from that town Berkeley captured the forts of Dehaigh and Siroul and subsequently extended his force to Pertabgurh. Still further to the East, Rowcroft advanced up the Gogra, after defeating the enemy on five different occasions, and cleared Goruckpore up to Fyzabad and Bustee.

Thus a chain of posts was established from Lucknow to Fyzabad in the North, Lucknow to Cawnpore on the West, Fyzabad to Allahabad on the East, and the Ganges on the South. In October the country to the West began to be cleared, from Lucknow forces advanced to Sundeela where two severe actions were fought on the 6th and 7th of October, and on the 21st the neighbouring fort of Birwah was taken; while from Rohilcund a column under Brigadier Troup advanced Eastward into Oude, towards Seetapore.

In November the Chief started for the campaign against the insurgents between the Gogra and the Ganges. These were in two bodies. One under Rajah Lal Madho Singh at Amethree to the West of Pertabgurb, the other under Bence Madho at Shunkerpore, which lay further South towards the Ganges. Hastening himself to Pertabgurb, he directed the convergence on Amethree of Grant from Sultanpore, and Wetherall from Soraon. In this progress Wetherall executed one of the most brilliant feats of the war, in the capture of the fort of Rampore Kussia. With this exception these operations were effected almost without opposition. The Rajah surrendered; his guns were taken; his fort was destroyed. The three columns then proceeded to Shunkerpore and on the 15th occupied the ground to its North, East and South. Brigadier Eveleigh was to have occupied the West; but he was detained by the difficulties of the ground and the opposition of the enemy. On the 8th he had defeated them at Morar Mow, and on the 9th he had taken the fort of Simree, but those operations delayed and prevented his sharing in the investment of Shunkerpore. Consequently it was evacuated during the night, and the enemy fled to Doondea Khera, but not unmolested. On the road thither they were met and defeated by Eveleigh with the loss of three guns. On the evacuation of Shunkerpore, Wetherall's Brigade was sent back to Fyzabad, to commence the passage of the Gogra, and to initiate the operations on the other side of that river. Grant was sent by forced marches to Roy Bareilly, to intercept Bence Madho, should his flight be to the North. On hearing of the real direction of his course, the Chief and Eveleigh surrounded him at Doondea Khera. On the 24th they attacked him, completely routed him, and took all his guns. Eveleigh's, Wetherall's, and Pinckney's (the Pertabgurb) Brigades then went through the length and breadth of the land, round which the cordon had been formed, demolishing forts, and establishing the police and civil power. While the Chief was thus settling the country to the East of Lucknow; Brigadier Troup, having advanced from Rohilcund, attacked the rebel talookdars in the neighbourhood of Seetapore, capturing Mithowlee on

the 8th, and defeating the enemy at Mehndee on the 18th of November. These operations cleared and quelled the country to the South of the Gogra and West of Lucknow, while Bennee Madho was driven from the East across the Gogra, by the columns under Gordon, Carmichael, and Horsford, who, as the Chief describes it, successively took up the running.

Wetherall's Brigade, crossing the Gogra at Fyzabad, joined Rowcroft's column, and General Grant assumed command of the whole. Immediately after the passage of the river, he encountered and defeated a strong force of the enemy under the Gonda Rajah and Mehndee Hussein, dispersing them, some up the Doab, others to the North of the Raptée. Advancing himself to Gonda, he detached Rowcroft to the right across the Raptée; so that the two columns should command the whole space between the Gogra and the Hills, and oppose any attempt of the enemy to turn their flank and enter Goruckpore, Tirhoot, or the other South Eastern districts. The Chief, detaching Eveleigh to the West to co-operate with Troup, (an operation during which he captured the fort of Omeriah) advanced with the remainder of the moveable forces towards Byran Ghat, on the Gogra opposite Secrora. The fugitive Bennee Madho with his force was on the opposite side. An order to Sir Hope Grant to move from Gonda to Secrora, caused their immediate departure and cleared the front of the British troops. Calculating however that the construction of a bridge would be the longer of the two operations to get to Secrora, he left a Brigade under Purnell at the Ghat to make the bridge there at greater leisure, and himself marched down the right bank to Fyzabad, crossed there, and up the left to Gonda and Secrora.

With himself at Secrora, Rowcroft across the Raptée, and Grant occupying the intervening space, the whole force moved forward, the right slowly almost acting as a pivot, the left sweeping up the Doab. Advancing to Bareitch, the Chief drove before him the Begum who had been at Bondee, and the Nana at Bareitch. Thence the Chief advanced to Nanpara, and first clearing the country between it and the Gogra, taking two strong forts by the sheer force of vertical fire, he then marched rapidly to Bankée to the North West on the confines of Nepaul, and surprizing the camp of the rebels, defeated them with great slaughter, driving them across the Raptée into Nepaul. Rowcroft, similarly having stormed Toolseepore, had driven Bala Rao into the country of our allies. And thus Oude was cleared of all who still clung by choice or necessity to the rebel cause. Thus was it brought about that, as Lord Clyde expressed it, there was "no longer even the vestige of rebellion in the province of 'Oude.'"

In less than two years, one of the most gigantic rebellions conceivable had been crushed; one of the most stupendous wars on record terminated by the universal victory of the one party, the utter prostration of the other. It would be almost blasphemous not to acknowledge that the hand of Providence was manifest, every day and every hour, in the events that developed this result, manifest incontrovertibly in circumstances that no human knowledge or wisdom could have effected; manifest also, in the unexampled wisdom and conduct it evoked in men, on whose actions in a worldly point of view depended the good or evil progress of the war. John Lawrence held the Punjab, kept back the wild tribes of Afghanistan, whose bands were mustering in Cabul for the invasion of India; and forced Wilson to the storm of Delhi. Henry Lawrence, with a wisdom that surmounted the dictates of mere military rules, organised those plans, by which the myriads of Oude were attracted by the magnet of Lucknow, and kept there almost idle and harmless, until the resources of British power began to be developed, and the crisis was passed. Macpherson and Davidson, by the force of personal character and influence, and the assistance of wisely chosen ministers, held firm to the British cause, the most important Hindoo and the most powerful Mussulman Court in India, and through them, prevented the rebellious soldiery of Bengal being joined by the independent States of Hindostan, and their brethren of Madras and Bombay. We doubt whether any one of all these important operations could have been successfully effected by any other man in India or in the world than he to whose lot Providence had assigned the duty—with these exceptions. We believe that Mr. Montgomery could have held the Punjab; we believe that Sir Henry Lawrence was fitted for any position at any period of the crisis.

Another actor in the Drama has shewn a capacity and a combination of endowments which preclude the possibility of limiting the sphere of his influence and action. As Statesman, Diplomatist, Administrator, General, or Soldier, Sir James Outram holds a place second to none. But he arrived too late to influence the crisis to the degree to which it was affected by those whom we have already named.

To their character and conduct must be chiefly ascribed the successful issue of the struggle, while yet unaided from England. The powers which they swayed and influenced were the most gigantic; the evils which they averted would have been overwhelming, they would have multiplied ten-fold the difficulties with which Lord Clyde had to contend. They were the statesmen of the crisis, but look at the executive. Glance at the

innumerable instances of men rising to the emergency, and evincing character and conduct which it was out of all reasonable calculation to expect.

•Brasyer, by his dauntless courage and incomparable tact, secured the loyalty of his Seikhs, and saved the fort of Allahabad. Neill initiated that tone of decision and dash which broke the neck of the rebellion on the Ganges, saved Benares, and secured Allahabad. Havelock—we need not speak of him, nor yet of the grand and heroic Nicholson. Eyre, by consummate skill and perfect soldiership, saved Behar from insurrection. Venable, with his retainers, and Longden, with his handful of the 10th, held the frontier of Jounpore and Azimgurh against countless foes. Fulton was the defender of Lucknow. Crommelin has inaugurated a new era in subterranean warfare. Baird Smith planned, and Taylor carried out, the design for the capture of Delhi, and shewed how parallels and zigzags may be dispensed with, and batteries can be built in the teeth of the fire of an unweakened foe. Hodson, the author of our new Cavalry, was unequalled as a Commander of Horse, as a leader in partisan warfare. Tombs worked his six pounders against siege guns, as Artillery was never worked before. Rose, with a couple of Brigades, conquered the whole of Central India from Indore to the Jumna. Roberts has shewn how to baffle and thwart a fugitive, desperate, and ubiquitous foe. Napier has shewn himself alike the skilful Engineer of the operations at Lucknow, and the intrepid leader in the most crushing pursuit of the war. No other army, no other country, could produce so illustrious a band, could display such fertility in men ready for any emergency.

But, with all these deeds, with all these glorious lieutenants, we believe that the magnificent result which has been now obtained, would not have existed but for the wisdom of the tactics which Lord Clyde adopted throughout the campaign, and the resolution with which he adhered to them in spite of all cavil and opposition. Grandly confident in the high courage of his men, thoroughly assured of the terror with which the enemy were inspired, he scornfully avoided the display of the one, when the only gain would be to enhance the other. He designed to overwhelm and crush the enemy completely and thoroughly. He had planned one great coup of destruction at Lucknow, but he was foiled in its execution by the conduct of Brigadier Campbell. Around the enemy, then escaped and dispersed, he organized his stupendous cordon of posts, concentrating from which, and forcing all minor and local influences to yield to the grand end, he has swept all signs of rebellion from the land.

We know that his operations have not generally met with the admiration which we believe them to deserve. We are aware that he is taxed with adhering to large and slow, at the expense of numerous and quick, operations; with keeping troops idle when they might be well and usefully employed; with destroying the prestige of British intrepidity by allowing the enemy to run riot and unmolested, in Rohilcund and other localities, so that even our friends and allies began to despair of our success.

Let us analyze this. There certainly had been a period in the war when one great object in all the fighting was to obtain and secure the support of every possible friend and ally, and to establish the morale of our invincibility in the field. But that time had elapsed. The turn of the crisis was over. It was still very pleasant and desirable to have regiments of friendly nationalities in our corps d'armée. But their importance was not so great as heretofore. It was become more essential to progress towards the thorough extinction of the rebellion, than to defer to friendly but crude opinions. It was no longer necessary to vindicate the irresistible superiority of British courage. The British advance was the certain signal of British victory. Native and crude views of warfare, fruitless dash and daring, endless repetitions of honorable but empty victories, must give place to the wisdom of strategic war, to the skilful application of means to the end. The contest was with an enemy who wanted not to fight but to harass—to beat him was futile. To attempt a petty campaign with a small force, solely because it was ready, while no other columns were as yet prepared to co-operate, would be to enter on an isolated operation, while all isolated and unconnected operations were found to end invariably in wearisome and fruitless pursuits by the British, and the re-assembling of the enemy at unexpected and unguarded points. Hence the only efficient plan for campaigning against such a foe was to advance through his country with a line through which he could not break, and of which he could not turn the flanks.

His operation was sure in its results; we think we have shown that Lord Clyde was not slow in its execution. All the objections and adverse comments that we have heard and read, appear to us to be petty and trivial. In future ages, when the days and weeks of which we are now so impatient will have become shadowed in the great events and characteristics of the war, history will record among her proudest chapters, the Campaign of 1858.

CRITICAL NOTICES

OF

WORKS ON INDIA AND THE EAST PUBLISHED DURING THE QUARTER.

A Widow's Reminiscences of the Siege of Lucknow. London. James Nisbet and Co. 1858.

MANY may think, and perhaps rightly so, that of books on Lucknow and its siege no more are wanted, that that great event has had every form and phase of it painted and filled up in every colour. Every class and variety of action and suffering have been recorded, unless perhaps the purely medical and psychological, which are confined to the somewhat dry and professional pages of medical reports and reviews. It may be thought that such works as those of Mrs. Harris, Mrs. Case and the Polehamptons have rendered this little record unnecessary. Still we would not willingly want it. We have read all the Lucknow siege literature, and destitute though this be of startling incident, military picture, or political remark, we believe it to be the most artistic, because the least artificial, of them all. Pathos, simplicity, and pure natural feeling meet us in every sentence, and while the whole is a history of trial, separation and death, there is an under-current of healthy emotion, calm resignation, and triumphant trust in the Lord as a 'rock of defence in the day of trouble.'

The writer is the widow of Robert Henry Bartrum of the Bengal Medical Service. When the first 'sough' of the mutiny was heard, he was stationed with his wife and one little baby-boy at Gonda some 80 miles from Lucknow. Their alarm daily increased as intelligence came fast and thick on intelligence, of new mutinies and new massacres. At last Sir Henry Lawrence's order arrived for the ladies and children in the out-stations of Oude to take refuge in the Residency, and our authoress and little one, with Mrs. Clarke and her family, set out on an elephant to join the party that was starting from Secrora, sixteen miles distant. Their husbands accompanied them so far, and the separation was most bitter. They found that the Secrora party had started two hours before, and so under the protection of a few sepoy's alone they followed them, overtaking them at last after much trembling. Mrs. Bartrum found herself in the Residency in the midst of confusion, dirt, and bad food, with her child sickening daily before her eyes and attacked with cholera, and in a state of cruel anxiety for four months about the fate of her husband. Like a true Englishwoman she set herself to put things right, to assist others, to take charge of motherless orphans, and generally to be useful where and as she could. From this part the narrative is confined

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to her own trials, while those of her husband are stated, after she has described the 'Relief,' in letters of his own to her which then fell into her hands. She thus describes her daily life :

"We were up as soon as it was light, having opened our eyes upon a large white-washed room, containing seven charpoys (by which I mean native bedsteads) one long table, three chairs—or few of us were possessed of such things, and some boxes and bundles scattered about the room. Our first occupation was washing and dressing our children and setting things to rights, for this was our sitting as well as sleeping apartment, then breakfast was to be thought of, and this appeared when it suited our attendant to bring it, and then it looked so uninviting that hunger alone made it palatable. The rest of the day was employed in various domestic matters, and in endeavouring to keep ourselves cool, but the heat was most intense and many were beginning to suffer greatly from its effects. In the evening, when the work of the day was over and our little ones were asleep, we used to gather round a chair, which formed our tea-table, sitting on the bedside, and drinking our tea (not the strongest in the world) by the light of a candle which was stuck in a bottle, that being our only candlestick, and then we talked together of bygone days, of happy homes in England where our childhood had been spent, bringing from memory's stores tales to cheer the passing hour, and thinking of loved ones far away : of the father that knew not as yet that his child was a captive in a foreign land ; of the bright band of sisters and brothers who formed the household circle ; but most of all of the husband fleeing perhaps for his life, whose heart was with his wife and child in their captivity, and who might even then be coming to their rescue—and many were the prayers sent up to heaven that such might be the case."

Her friend and fellow fugitive, Mrs. Clark, became weak daily, until reason tottered and she did not know her own children. Her baby was baptized at her side as she lay dying, by her mother's name. Mrs. Polehampton, having lost her own husband, now became a true friend to Mrs. Bartrum. We can picture that mother as she describes herself putting her child to sleep and sitting beside him to fan away the musquitoes, whilst she read the psalms and lessons, and, as she says, "how touchingly applicable were many of those beautiful psalms to our own case. Never before had been breathed forth with such earnestness those words "O let the sorrowful sighing of the prisoners come before Thee, and preserve Thou those that are appointed to die" and many other such expressions. I have seldom time to do any needle work, because when baby wakes I have to nurse him again, and amuse him, and talk to him about papa. When I ask him where his papa is he always points up to heaven. It is so strange, and I cannot bear to see him do it."

Her husband was ever her thought, and there is no scene more natural and touching or more exquisitely and simply told in the book, than that in which, when the Relief comes in, she eagerly asks an officer if he is with the reinforcement, and when she is told that he is, walks up and down the road to the Baillie Guard gate watching the face of every one that came in, spending the last solitary night sleepless for joy ; on the morrow (September 26) up with the daylight, her baby dressed in the one dress that had been kept for him during the siege, until his papa should come. But it was not to be ; hope deferred made her heart sick, and Mrs. Polehampton broke the sad news. "All Thy waves and Thy storms have gone over me." He had fallen at the gate. The scene

during the leaving of the Residency is well pictured. Now she lost her way, fled from the doolie, was close on the enemy's pickets ; and wearied with her boy for upwards of three hours walking through deep sand and wet mud, she at last reached the camp, and sat upon the ground to indulge in a burst of tears. We need not trace her journey to Calcutta, nor picture the death of her babe there. She sailed with Mrs. Polehampton in the *Himalaya*, and closes her little volume with these words. "And now ~~what~~ what is my hope ? truly my hope is 'even in Thee.'"

Her husband meanwhile had escaped to Bulrampore, and thence to Ghazeepore and Benares. There, after fever, he joined the Artillery under Major Eyre, accompanied Havelock's force, but fell in the very hour of triumph. *Post nubes astra*. We have drawn aside the veil and gazed for a little on the sorrow through which the widow passed. Perhaps it would have been more reverent to have left it undisturbed. But the little book is there, and we commend it to our readers. It is a work as free from extravagance as it is full of natural simplicity, as truly beautiful in that simplicity as it abounds with lessons of God-given fortitude and noble English womanliness.

Why is the English Rule odious to the Natives of India ? By Major W. Martin, Bengal Retired List. London. W. H. Allen and Co. 1858.

THIS little pamphlet is a compilation consisting of large extracts from Mr. Shore's 'Notes on Indian Affairs', and smaller passages from Mr. Halliday's Police Minute and the Letters of the *Times* Special Correspondent. From these the author, in a few remarks of his own strives to shew that our rule is odious to the natives of India because we have always treated them with hauteur, ground them down, sold their land, given them bad courts, shocked their sensitive Asiaticism ; &c. With a basis of truth the writer has misunderstood the whole spirit of the British Government of India, ignored every fact that would tell against his strong denunciations and alarmist croakings, and asserted, at least in spirit if not in so many words, that India is worse governed now than it would be under its own kings or Mussulman conquerors. He has overdone it.

Memorials of Christian Martyrs and other Sufferers for the Truth in the Indian Rebellion. By the Rev. Wm. Owen, Author of the "Life of Havelock." London. Simpkin Marshall and Co. 1859.

THIS work is a compilation partaking evidently, like Mr. Owen's former book on Havelock, more of the character of a book meant to catch the reading public and to sell than to communicate any new information, or enforce any new and before untaught lessons. Its one value is that it collects as it were into a focus, from the Letters and Speeches of

Missionaries and the Reports of Missionary Societies and religious periodicals, all memorials of the death of those English and Native Christians who, during the massacres of the rebellion, preferred slaughter to the denial of their Lord. Beyond such we have one or two very common place and nerveless chapters, in which the nature of the argument for Christianity from the testimony of its martyrs and confessors is considered, the professing Christians of the British Churches are urged to examine themselves in the light of these fiery trials, and of the noble conduct of these native martyrs, and to rouse themselves so that more men may be sent out into the mission field. With much that is good in it here and there, the book is most badly arranged, has in it not a few errors in fact and policy, and is in its tone far from healthy or natural. The character of the Native Christian Church is very properly defended from the attacks of those who oppose missions, and the desponding doubts of Missionaries themselves. From the statistics of Mr. Mullens and Dr. Duff, the author shews that 1500 Christians were massacred of whom 240 were British Military Officers, 4 were Chaplains and 10 were Missionaries with their wives. He believes that converted Hindoos and Mahomedans were true to their new faith in a larger proportion than British Christians. We fear that we have not sufficient nor sufficiently trustworthy evidence to form any sure opinion on this point, but we must remember that many an Englishman would refuse to deny his Lord and faith as much from race and national feelings as from a real union to Christ. There seems to have been a total loss of Missionary property of £34,900, or about half the amount of that in the whole of India. We have among the roll of native martyrs the names of Wilayat Ali and Fatima his wife, Daoud of Umritsur, Joseph the Catechist, Jhunah and Hera of Umritsur, Gopeenath Nundy and his wife, Thakur Das of Agra, and Dwarkanath Lahoree. We regret that such a glorious subject has been spoiled, and we fear utilitarianised, by such a book, and also that hitherto the religious literature of purely English writers called forth by the mutiny, has, not excepting Baptist Noel's Work, been so very bad. Yet the writers are educated good men, while mere Military men who can handle the sword but not the pen far eclipse them, with a theme infinitely lower. It arises from this, that the latter have been in India on the spot, that each one can say as he tells his story. "*Quorum pars magna fui*," while the former cannot distinguish exaggeration from sober truth, fact from fiction, and above all cannot cover their canvas with those hints which only they who know the land and its peoples, can exquisitely apply. It may be too that the professionalism and ignorance of the world of the clergy, unfit them to shew all the truth, in its many phases, so that their readers may catch the just *spirit* as well as read the true facts.

CRITICAL NOTICES.

Calcutta University Calendar for 1858-59. Calcutta : Bishop's College Press, 1858.

The Madras University Calendar for 1859. Madras. Printed by D. P. L. C. Connor at the Press of the Society for Promoting Christian Knowledge, Vepery. 1858.

Address delivered by Sir James Colvile, as Vice Chancellor, to the Senate of the University of Calcutta, at its Annual Meeting, on Saturday the 11th of December 1858, and printed at the desire of that Body. Calcutta. Military Orphan Press 1859.

WE intend ere long devoting an Article to the important subject of Universities in India, and at present will not do more than chronicle, in a few words, the publication of these volumes, representing as they do our infant Oxfords and Cambridges in India, or rather our infant Londons, though this latter does not sound quite so academic, for according to the provisions of the great Education Despatch, which the Supreme Government have so continually ignored, our Indian Universities are based, almost too slavishly, on the constitution of the London University. The Calendars in both Presidencies are well got up as to externals, but that of Madras is so inaccurate, and has so many typographical errors for an academic publication, that the Registrar must surely be unfit for his post. One examination paper—the Latin for 1857, is omitted altogether.

On comparing the two calendars we are struck by the fact that the Madras people surpass those of Calcutta in wisely limiting the course for both Entrance and the Bachelor's Degree, within a sphere that is in harmony with the state of education in India, while at the same time the questions given in the Calcutta examination are much more difficult than those at Madras. We believe the Madras plan to be right—to settle the standard and limit the course so as to be in accordance with the state of the affiliated Colleges, to be above them of course, yet not so far as to make University Honors unapproachable. Our Indian Universities are in their infancy, and we must not compare them with European Institutions of a similar nature, as they are now, but rather with what these latter were in the dark ages, when it was a triumph to overcome the 'quadrivium' as well as the 'trivium.' The Universities wisely conducted, as they give promise of being, will be a boon to India and have a great effect in time in raising the lower class of schools as well as the higher, and attaching the educated classes firmly to the British Government.

We see that both Universities have already two Bachelors of Arts respectively, but that while those in Calcutta are orthodox Hindus—one a Kulin Brahmin—those in Madras are both native Christians, educated at the Jaffna American Mission School and bearing, instead of the native names, the names Charles Winslow and David Carroll. They are the first Indian Graduates, having passed before those in Calcutta. The number of Under-Graduates is necessarily much smaller at Madras than at Calcutta. To give a complete history of the University, the Calcutta

Calendar ought to have contained the examination questions for 1857, as the names of the Under-Graduates who passed it are given. The characters in the Oriental Language Examinations give a strange, learned, and by no means unpleasing, look to the pages of these Calendars. "

Sir James Colville's address, in both its subject and tone shews the change as to the view now taken of the religious question, since the rebellion has taught the Christian the value of his faith when in the midst of Asiatics. He grapples with the question in a style that would have shocked even himself two years ago, and does not spare the notorious education minute of Sir George Clerk and Lord Ellenborough. The address is a manly and healthy one and coming from a 'neutral' Chief Justice must, with all its timidity, be accepted as a sign of the dawning of a new era :—

"One of the most obvious results of the religious difficulty is the indisposition to receive even the truths of physical science and the results of modern observation, because they contradict the dogmas or the dicta of religious books, or the teaching or traditions of those who are thought to possess a character higher than that of professors of purely secular learning. In short, we have to meet the feeling, which, in Southern Europe, so long obstructed the reception of astronomical truths, or of whatever else conflicted with that portion of the Aristotelian philosophy which had been adopted by the Church ;—the feeling which, in our own age and our own country, is still often found in antagonism to the results of Geological discovery. This however is an evil which time and gradual enlightenment may remove. But suppose it removed— we shall hardly the less have to meet the religious difficulty in another shape. For there are few thinking men who, if they really possess any religious sentiment, will not admit the imperfection of that system of education, under which the teacher is severed from the religious sympathies of the taught ; and must either be silent upon the relations of man to a higher world, or, if he discourses upon them, must be suspiciously heard and imperfectly understood. Again, this difficulty has lately presented itself in a new form and with especial relation to this University. I need not remind you that the University includes the students of the Government Institutions from which, necessarily, as I think, religious instruction is excluded ; the students, whether Christian or not Christian, of institutions under the control of Christian Missionaries, and schools in which the teachers and the taught being alike Christians, religious instruction may be given as freely as in any European Seminary. It seemed to us, who settled the course of study and the subjects of examination prescribed by the University, that all should have an opportunity of distinguishing themselves in every branch of learning which formed part of their ordinary studies. And therefore we inserted certain subjects connected with theology amongst those subjects, on one or more of which candidates for Honors might at their choice be examined—examination in such subjects being compulsory on none. We know now that even this concession has recently been objected to in a high quarter. I trust however that on a fuller explanation of the whole matter, that objection will be removed. One word more upon this subject in connection with the Faculty of Arts. The very necessity which excludes theology and religious doctrine from the compulsory subjects of our examinations, makes the duty of doing our very best to inculcate that sound morality, which all, whatever be their creed, may receive, the more imperative. It seems to me therefore that the warning, lately given to the Senate by Dr Duff, of the tendency of the native mind to prefer the subtleties of metaphysics and the intellectual exercises of Logic to the sound and practical truths of purely Ethical science, was of peculiar value,—and that we ought to be careful hereafter to order our examinations on mental and moral Philosophy in the manner indicated by him."

"I cannot believe that Providence has built up an insuperable barrier between

the thoughts and feelings of the Western and those of the Eastern world ; between races who, if Ethnologists are right, are allied more closely than by their common humanity. May we not suppose that in the economy of the moral and intellectual world, there obtains some principle analogous to that which in the economy of the natural world permits the animal and vegetable productions of one climate to be transplanted to, and to become naturalized in another ? Ought we not to believe that it is for some higher purpose than the extension of dominion or commerce, that our vast Empire here has been so marvellously built up, and during the last two years so providentially preserved ? But we must be patient, we must recollect that we are not merely planting an exotic. We are planting a tree of slow growth. The plant is young and tender, and obstructed by weeds and brambles. But it is healthy, and if carefully tended, will by God's blessing become a goodly tree and overshadow the land."

Memorandum on the Province of Assam. By G. R. Barry. Calcutta. C. B. Lewis, Baptist Mission Press. 1858.

MR. BARRY of Serajunge, with his usual energy and eye to outlets for merchandise and speculation, points out, in this short memorandum, the immense value of Assam to the Government, were certain suggestions of his adopted. He shews its capabilities in the way of Tea, Cotton, Rhca, Coal, Lime, Iron, Gold and Timber, the last of which is found in the forests that line the Brahmapooter for 400 miles. He proves that the common impression as to the want of population is a mistake, but that the people, from the unrestrained use of opium, the lightness of the land-tax, and the rules as to clearing waste lands, are thoroughly lazy, because better treated than any other of Her Majesty's Indian subjects. He recommends 1st "a stringent prohibition against the cultivation of opium. 2nd. (Paradoxical though it may appear) 'a gradual but considerable increase in the land and other taxes.'" Mr. Barry seems to be personally interested in the prosperity of the province

A Lady's Captivity among Chinese Pirates in the Chinese Seas. Translated from the French of Mademoiselle Fanny Loviot, by Amelia B. Edwards. London Routledge and Co.

THIS is one of the numerous *ad captandum vulgus* class of works, which the Rebellion in India and recent events in China have so largely brought into the bookselling market. In style, in expression and even in fact, it is French—thoroughly French, and although the young lady authoress in her dedication declares that she has never written a book in her life, it is evident from the practised *Litterateur* spirit and "getting up" of the whole, that her Narrative has been published by some literary artist. The French element is seen throughout, in its melodramatic character, in its intense and spasmodic expressions, in its occasional contradictions in the same page—though that may be rather a characteristic of the sex—in its word-painting and in its general extravagance: For instance ; some vessels in the harbour of San Francisco at the height of the gold fever are thus described. "Their faded flags

'hung in tatters from the broken masts ; their decks had given way ; and the moss was already growing in the interstices of the boards.' Again, she is a firm believer in presentiments whether of joyful or sorrowful events. Again, she describes, in the truly intense and French style, 'two cheering little birds' that she had brought with her from Hong-Kong. "I kissed them tenderly ; for they were all that I had to love." One does not always dislike this, and if it is so evident in the English translation, what must it not be in the original.

The story is emphatically a '*drame maritime*.' There must be some truth at the basis of it, we suppose, from the 'corroborative extracts from the French Press'—the *Presse*, *Moniteur* and *Patrie*, which are appended to the little volume, but the superstructure and working up are, no doubt, largely imaginative. The story is this. Fanny Loviot sets out with her sister on a commercial speculation from Havre on the 30th of May 1852 bound for California. They touch at Rio Janeiro, and after many dangers, from which our authoress is never free throughout the volume, they reach San Francisco. A spirited picture is given of life in California ; but owing to its dangers Mademoiselle Fanny, leaving her elder sister behind, resolves to set out with one Madam Nelson on another commercial speculation to Canton, Macao, Hong-Kong, and Batavia. Her partner dies, and in 1854 she at last arrives at Hong-Kong. All her hopes being thus disappointed, she resolves to return to California, and takes her passage in a Portuguese ship, the *Caldera*, under a Chilian flag and commanded by a Captain Rooney. After meeting with a typhoon they are boarded by pirates who strip the vessel, and force the Captain and his crew, our authoress and the only other passenger—Than Lingh, a Chinese merchant, to submit to every indignity. When engaged in their pleasant work, those pirates are alarmed by a stronger set, and make off with what booty they had got, leaving the ship to the mercy of the new comers. A faint attempt at escape in an old boat was made by all on board, but they were forced to put back. Their new master resolved to send the Captain to Hong-Kong to negotiate for ransom, and kept our Mademoiselle and Than Lingh in confinement until it should be paid. The horrors, filth and fear of their captivity are described, but still their lives are spared. Occasional glimpses are given us of pirate life. Capt. Rooney, of course, when he reaches Hong-Kong, hands over the pirates to the Government (the improbable predominates here) and persuades the P. & O. Company to lend *The Lady Mary Wood* for the purpose of restoring the two captives. Their first attempt is unsuccessful ; they cannot find the junks, but a second expedition is made in the Steamer *Ann* which is lent, at the request of the French Vice Consul, by Sir James Sterling. They destroyed many junks and villages, and recovered much of the cargo of the *Caldera*. At last, when the captives' junk is stranded, her sailors decamp. Our heroine in men's clothes and waving of her chemise on a bamboo, is at first mistaken for one of them, but by her light hair falling down in tresses, Captain Rooney recognises her and she is saved. All Hong-Kong, it seems, was interested in the case ; many of its inhabitants accompanied the expedition. At last after rest there,

per *Makka*, *Bentinck* and *Valetta* Fanny Loviot reached Marseilles, reached her beautiful France, and so sets herself to tell us all about it. Very interesting, certainly, if true.

The Cavaliers of Fortune or British Heroes in Foreign Wars By James Grant, Author of "The Romance of War," Etc. With Illustrations. London. Routledge. 1859.

It was the intention of the late Sir Henry Lawrence, expressed on more than one occasion to the conductors of this *Review*, to write a work or series of Articles on Indian Adventurers and Vagabonds, including under these titles the many European soldiers of fortune, as well as men of no particular profession, but possessed of great natural powers, who ever and anon appear on the surface of Indian history, frequented in large numbers native courts, trained native armies like those of Runjit Singh, and, as none knew so well as himself (for they were ever crossing his path and receiving assistance from him) so abounded and still abound in British society in India. We fear the time is fast passing away when accurate information may be discovered concerning such, unless they be the few who are more prominent on account of their success or notoriety than their brethren.

Mr. Grant is better known as a historical novelist than as a historian or biographer, but in the course of his researches and reading with a view to the preparation of his historical romances, he must have met with much strange 'personal' information, that history in the course of time allows to drop. In the work before us he embodies this in a series of really interesting and somewhat accurate sketches of British soldiers of fortune, whom the great continental wars of 'the thirty years' 'the succession' and 'the seven year', as well as the peaceful condition and poverty of their own country, drove forth to seek for glory, wealth, and honours. They were chiefly Irish and Scotch,—the latter in the service of France and Gustavus Vasa, and the former, so famous in history as the 'Irish Brigade,' chiefly in the service of France alone. Hence the song, a verse of which Mr. Grant quotes in his preface.

"They who survived fought and drank as of yore,
But the land of their hearts' hope they never saw more;
For on far foreign fields from Dunkirk to Belgrade,
Lie the soldiers and chiefs of the IRISH BRIGADE!"

Our modern civilisation, and our artificial expedients in the art of War, have extinguished the class. We do not certainly live in a 'heroic' age in the old sense, but we have nobler triumphs to tell of than our sires, while India shews we have not gained them at the expense of British 'pluck' and Saxon muscle.

The first hero whom Mr. Grant takes up, and the only one with whom we are concerned, is the famous Arthur Count de Lally 'General of the troops of Louis XV. in India'. In the course of a picturesque sketch of
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him we are also introduced to the antecedents of the well-known Scotchman M. Law, who fought on the French side in the wars in the Carnatic and Bengal. The former is worthy of our attention from his undaunted spirit, his singular military skill, his cruel disappointments, and his sad fate. His father was Captain O'Lally of Tulloch Na Daly in Galway, who left Limerick for France when he saw all his hopes of the restoration of James II. dashed to the ground by the capitulation of that city to William's General—Goda de Ginckel. In France he married a lady of distinction, and Arthur our hero was his eldest son. As a private in the company of his father, according to French custom, he first saw service under the Duke of Berwick at the famous siege of Barcelona, so well described by Macaulay in his "War of the Succession." He soon rose to be a Captain in the Irish Brigade, and at the age of five-and-twenty he was sent by Louis XV. on a political mission to the Court of Russia. His success was such that on his return he was promoted to the rank of Colonel, and became the favourite of both Henry and the Duc de Bourbon. In 1745 the projected expedition of Prince Charles Edward Stuart called forth all his ardour, which he had received by inheritance, as it were, from his father, and under the pretext of recovering some lands in Ireland he ventured himself in London. But Cumberland, "the butcher of the clans," found out the real object of his mission, and with difficulty our hero escaped to France where he learned, soon after, the disasters of Culloden. He remained quiet for some years, having married in 1769, and in 1756, the storm that had been long rising between France and England burst. Lally, now raised to the dignity of a Peer of France, and promoted to high rank, appears before us as "the Count de Lally, Lieutenant General and Commander-in-Chief of all his most Christian Majesty's forces in India," and on the 20th February 1757 accompanied by his brother Michael, he sets sail from Brest for Pondicherry, with the most stringent orders to destroy every English settlement in the East and extirpate the English themselves from India. He left his son,—afterwards the famous Count Lally Tolendal—at the College of Harcourt. On the 25th April 1758 Lally reached Pondicherry, and next day set sail for Cuddalore, the first of the British settlements that he intended to attack.

Though with a large fleet and, for that period of Indian history, a large European force, of which the famous Regiment de Lorraine constituted a part, and though in himself a host, for he was possessed of clear judgment, cool determination, strong nerve, high ambition and undaunted bravery, it was not in the nature of things that he should succeed, unless he had been absolute. He found M. de Bussy in command of the troops in the Deccan, disobedient, proud and jealous, the Council at Pondicherry, ignorant, timid and irresolute, and the Chef d'Escadre, Count d'Aché, determined to return to Madagascar and not to afford him any assistance by sea, either in support of his movements on the coast or in cutting off British supplies. He was, moreover, with an empty Exchequer, at the head of an army whose pay was long overdue, and who, supported by the bearing of the authorities towards their General, were in a state of chronic mutiny. Not a man on the French side

in India at that time had even formed, or had a soul big enough to comprehend, the daring schemes of Lally to raise his adopted France to undoubted supremacy in India, and to expel the British for ever,—in fact to do all that Clive did. Lally, even if supported better than Clive was, would never have accomplished his designs, nor, even if he had done so, could he have perpetrated his power. It is not in the Celt, nor in the Franco-Celt. He lacked one thing—will steadily directed to its object, faith that no disappointment can shake, political sagacity to bend his conquests to himself. He had no administrative power—he was an Irishman with French blood in him. Hence in the great contest for supremacy, when the question was tried—who shall be the Christianisers and civilisers of India, the effete blood of the French of the 18th century, not yet purified by a revolutionary cathartic, went to the ground, and the descendants of Cromwell and William of Orange were entrusted with the responsibility.

We need not go over the history of Lally in India. It is a sad one. The sieges of Madras then under a Lawrence, of Trichinopoly, and of Pondicherry are well told. Here is a picture of Brereton's death at the battle on the Polcar between Coote and Lally, in which the former, after a desperate struggle, was victorious. In it the Regiment de Lorraine gained an honour for themselves that few can boast of—*they broke the British line*. Brereton at the head of the original 79th Regiment (disbanded in 1793, and now organised as the Cameron Highlanders) had been ordered to seize a fortified post which the French were about to abandon. In the course of the necessary movement he fell mortally wounded.

"Foolow—follow" he exclaimed to some soldiers who loitered near him, "follow, and leave me to my fate." He soon expired; led by Major Monson the regiment advanced impetuously on, and after a vain and desperate attempt, made by the Chevalier de Bussy's regiment, to repel it, the French and their allies were completely routed in every direction by two o'clock in the afternoon."

In the siege of Pondicherry we have the following:—

"A body of Scottish Highlanders, who had just been landed from the *Sandwich* East Indiaman, behaved with their accustomed valour in this affair. Passing Draper's Grenadiers in their eagerness to get at the enemy, they threw down their muskets, and with their bonnets in one hand and their claymores in the other, hewed a passage through a jungle hedge, fell with a wild cheer on the soldiers of Lally, and cut a whole company to pieces; only five Highlanders and two Grenadiers were shot. The Highlanders were fifty in number and were commanded by a Captain Morrison. They belonged to the 59th Highland Regiment, which had been raised among the Gordon clan in the preceding year."

After eight months' siege, Pondicherry fell on the 16th July 1761. Sick and disappointed, but with £100,000, he was sent to Britain, as a prisoner of war, and confined within certain limits in Nottinghamshire. At last George III. freed him, and impelled by a strange destiny he turned his steps to France, still bound to return whenever the British Government

wished it. His first residence in France was the Bastille, a victim to the disappointment of France—as so many others were, for their colonial losses. He was accused of treachery, of abuse of authority, of extortion—and in fact of want of success where success was not possible; while Bussy, now a Marquis, and the Count d'Aché, who had ever thwarted him, were the witnesses against him. After being repeatedly tortured he was removed to the Conciergerie. But here we shall let our author speak.

"Though it was but one o'clock in the morning when he arrived at the Conciergerie (to quote the report of his condemnation), he refused to go to bed; and about seven he appeared before his Judges. They ordered him to be divested of his red riband and cross, to which he submitted with the most perfect indifference; and he was then placed on the stool to undergo a new course of interrogation.

At that crisis a pang of bitterness shot through his heart: claspings his hands, and raising his eyes,

"My God!" he exclaimed; "oh, my God! is this the reward of forty years faithful service as a soldier?"

The interrogatory lasted six hours, and D'Aché and De Bussy were successively examined against him. By nine in the evening the examination was over, and the Count was reconducted to the Bastille, surrounded by guards and several companies of the watch of Paris.

At six o'clock next morning the Judges delivered their opinions, which were so various, that the clock of the Conciergerie struck four in the afternoon before they came to a conclusion and pronounced their *arrêt* or decree, which contained a brief recital of the charges against De Lally, without specifying the facts on which they were respectively founded; but for the commission of which it was declared that he should be stripped of all his civil titles, his military rank, and dignities; that all his property should be confiscated to the king, and that his head should be struck from his body on the public scaffold.

"Without emotion the Count had heard their sentence, and with the utmost resolution prepared to die; yet he was detained, hovering as it were between life and death, until the morning of the 9th May 1766, when he was drawn on a hurdle to the *Place de Greve*, and hastily, almost privately, beheaded, with his mouth filled with a wooden gag, to prevent him addressing the people—thus adding another to the many barbarous judicial murders which disgrace the annals of France.

"His son, Trophine Gerard, who had been kept at the College of Harcourt in entire ignorance of his birth and of the proceedings against his father, only learned all these secrets when the public interest and commiseration became too great to conceal them longer. On the 9th the poor boy learned that the great General Lally, who was to die, *was his father*. He rushed, as he tells us, to the place of execution to bid his father, so recently found "an eternal adieu—to let him hear the voice of a son amid the voices of his executioners, and embrace him on the scaffold when he was about to perish; "but he arrived only in time to see the axe descending and his father's blood pouring from a dismembered trunk upon a sanded scaffold. Overcome with horror, Trophine—afterwards the great Count Lally d'Artois—swooned in the street, and was borne away insensible to the College of Harcourt.

Thus in his sixty-fourth year terminated the eventful career of Count Lally, the victim surrendered by a weak and tyrannical ministry to popular clamour, affording by his fate a memorable instance of the injustice, ingratitude, and barbarity of the Court of Versailles."

Of Law, who was defeated by Major Carnac on the same day that Lally surrendered, Mr. Grant gives us the following account.

"M. Law was a nephew of the famous financial projector, John Law, of Lauriston, near Edinburgh, who, in 1720, was Premier of France, and Comptroller-

General of Finance, the same whose desperate schemes brought the kingdom to the verge of bankruptcy. M. Law had made himself useful to the Schah Zaddah, son of the late Mogul, in supporting the young prince's hereditary claims, and enforcing his authority on the provinces of the empire. With 200 Frenchmen (principally fugitives from Lally's outposts) he persuaded the Schah to turn his arms against Bengal; and accordingly the young and rash prince entered that rich and fertile province at the head of 80,000 Indians, whose operations were directed by Law, and certain chevaliers his friends. In the eyes of the British (who had then become the arbiters of oriental thrones), the presence of the Scottish refugee and his followers was more prejudicial to the title of Zaddah than any other objection, and they joined the Subah of Bengal to oppose his progress. A battle ensued at Guya, when Major Carnac, with 500 British, 2500 sepoy, and 20,000 blacks, cut the vast force of the young prince to pieces, and took prisoner M. Law, with sixty French officers."

Subject of Examination in the English Language, appointed by the Senate of the Calcutta University for the Entrance Examination of December 1859. Published by Authority. Calcutta. R. C. Lepage & Co., British Library. 1859.

WE draw attention to this work as the evidence of a plan, and the beginning of a series, that will have an important influence on the education of native as well as Christian youth in our large Public Schools and Colleges. In appointing subjects and books for examination in the two great languages—English and Bengali, a practical difficulty seems to have met the senate. Works suitable for an entrance examination, of a proper size, variety and cheapness, are singularly few in number and are seldom procurable even when otherwise suitable. But these would soon be exhausted in successive years, every year demanding its own prose and poetical authors. This practical difficulty is avoided by the plan of yearly issuing volume of selections, not of short pieces, like an ordinary school 'collection,' but of the Standard Works, or large parts of the Standard Works, of our best English Authors. In addition to the educational use of such volumes when wisely selected, as each successive year issues its own, a small library of standard pieces fitted for the young will be formed, in which all, whether at school or not, may read with pleasure and profit.

The volume before us is the first of such a series. The subjects and pieces are chosen with much skill and practical knowledge of the wants of the country as well as of the best pieces of our English literature. Thomson's "Winter" and Heber's "Passage of the Red Sea" form the poetical part; in the prose Johnson's "Rasselas" represents the purely literary, a chapter from Herschel's admirable "Discourse on the Study of Natural Philosophy," the scientific; while both the scientific and moral are represented by a chapter from Paley's "Natural Theology," on Comparative Anatomy. Most important to the young student is the concluding chapter taken from Todd's "Student's Guide," in which the object of study is well put and well illustrated, while the style has been purged of its Americanisms. The whole occupies 244 pages. The next book of selections will be still more interesting and appropriate. It will contain the following:—

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|-------------|-----|-----|-----|-----|---|
| ROGERS, | ... | ... | ... | ... | Pleasures of Memory. |
| COLERIDGE, | ... | ... | ... | ... | Mont Blanc. |
| DE QUINCEY, | ... | ... | ... | ... | Revolt of the Tartars. |
| CRAIK, | ... | ... | ... | ... | Pursuit of Knowledge under Difficulties. |
| HELPS, | ... | ... | ... | ... | Essays written during the in- tervals of business, Part I. |
| MANTELL, | ... | ... | ... | ... | Thoughts on a Pebble. |

De Quincey is wisely thus chosen.

But while giving unqualified approbation to the merits of the selection, we must condemn in very strong terms the delay in issuing it (only 9½ instead of 18 months being allowed for its study) and especially the way in which it has been 'got up,' disgraceful alike to the printer, publisher and 'authority' who issued it. Cheapness we know is with the Bengali a great object, but for one rupee with such a large sale as the volume will necessarily have, it is to be regretted that should a book should be issued with the *imprimatur* of a University upon it. If the paper had been twice as thick, the type twice as large, and the binding more school-like, it would still have paid the publisher well. But worse than this, a prominent error meets us on the title page and in another part of the book. The well-known name Herschel is spelled HERSHELL, which instinct and habit of eye, if not personal knowledge, might have taught the proof-corrector to avoid. This may be a little matter in itself, but not as coming from a University authority, and not in a work designed to be read by thousands of young foreigners. Let these evils be avoided in future.

The Indian Church during the Great Rebellion : an Authentic Narrative of the Disasters that befell it ; its sufferings and faithfulness unto death of many of its European and Native Members. By the Rev. M. A. Sherring, A. M., L. L. B., formerly Missionary in Benares, and now Missionary in Mirzapore. London. James Nisbet and Co. 1859.

THIS work is, to a great extent, worthy of its subject, and is the very antipodes of the charlatan-like compilation of Mr. Owen on the same subject, above noticed. Beginning with Meerut, and leaving Scalkote to the last, each station where Missions and Missionaries suffered is taken up in regular geographical order, and the fullest information obtainable from the letters, sketches and oral statements of both Europeans and natives is given, so that there is nothing left to be desired. There is a pleasing absence of extravagance in statement and description, and an air of calm truthfulness as well as of heroic endurance is thus given to the book. Apostasy is related as well as triumphant martyrdom, and we rise from the perusal of the volume, with the feeling that the infant Church of India in the 19th century is still the Church of the first three centuries, in its faith, its firmness and its heroism.

A Manual of Teaching; containing descriptions of the ordinary Systems, Methods, and Forms of Instruction, with their Application to the usual Subjects of Elementary Education; illustrated by several Specimen Lessons. Intended for the assistance of Students in Normal Schools, Pupil Teachers, Monitors, and young Teachers in general. By E. H. Rogers, Head Master of the Boys' School, Lawrence Military Asylum; and Master of Method in the Bengal Military Normal School, Sanaour; Lawrence Military Asylum Press. 1858.

THIS work, as the Author says in his preface, formed a portion of a course of lectures delivered by him to the students of the Normal School with which he is connected. It consists of 20 Sections arranged under the following heads:—Definitions, Systems, Methods, and Forms of Instruction, Rules and Hints for Teachers, on the Management of a Class, Preparation of Lessons, on Bible Lessons, on teaching the Church Catechism, Reading, Spelling, Writing, Arithmetic, Book-keeping, Geography, History, Grammar, Common Things, Geometry, Mensuration, Drawing and Vocal Music.

In the above the Author has endeavoured to compile a digest of all that he has found practically useful in the educational writings with which he is acquainted, after having put everything to the test of practice, and embodied therewith the results of his experience. The principal authorities relied upon in the preparation of the work, are Locke, Tate, and Stow. The arrangement of these authorities has been generally adopted throughout the volume, and in many instances their language has been used, but in several, the ideas have been expressed more concisely, but without any loss of perspicuity.

It is a hopeful sign, when practical teachers undertake a careful investigation of existing methods, and like Mr. Rogers clearly and candidly state the conclusions they take to be supported by the test of years of experience. We deprecate the establishment of stereotyped processes—the attempt to make all teachers run in a groove cut for them by amateurs, though on the other hand, we should be the first to protest against stretching this liberty too far.

In offering this Manual to the attention of teachers, the desire of the Author is to assist in the introduction into the elementary Schools of the country of a greater increase of professional skill. We recommend the book heartily and unhesitatingly, and trust, though at the exercise of some self-denial, teachers will each procure a copy. It is not expected that every statement made in the work will meet with universal approval, neither is it necessary that it should be so. The Specimen Lessons on Common Things, Objects, &c., would be differently worked out by us. We would think it desirable to mix more method and induction with these and the other lessons than Mr. Rogers has done. Children should not merely be taught to observe, but to make inferences; and to store the mind through the senses is not to train out its higher powers. We however like the work none the less for not agreeing in every particular with the Author.

CRITICAL NOTICES.

so hospitable and full of reverence to the sacerdotal class, that at the request of a Brahman, who afterwards proved himself to be none other than the Deity in human shape, he cut off the head of his son *Drakshana* and served it up to satisfy the cravings of the hungry priest. This action, so immoral and so revolting, is held up by the writer to the admiration of his countrymen. The other story is concerning one Parish Chandra who was crucified over Oude. The author's style is verbose, pompous, and inflated.

Jyôti Briksha or the Tree of Knowledge ; for the use of Schools. By Bipra, Charan Chakrabarti. Parts 1, 2, and 3, Calcutta. 1859.

THE elementary works of the popular vernacular writer Pandit Ishur Chundra Bidyâsagar being entirely destitute of the religious element, the conductors of Christian Vernacular Schools have long felt the want of a series of Bengali school-books written with a decidedly Christian tone. Baboo Bipra Charan Chakrabarti, a Catechist in connection with the Church of Scotland's Mission in Calcutta, professes, in the series before us, three parts of which have been already published, to supply this desideratum. Part I. contains, besides the alphabet, the double consonants and short sentences, the history of Joseph, an anecdote of Sir William Jones, the golden rule, the multiplication table, and the Lord's Prayer. Part II. contains a short account of the earth, some rules of grammar, a succinct description of the sea, the birth of Christ, divisions of time, the entrance of sin into the world, a short account of the Bible, the parable of the sower, and brief descriptions of the atmosphere and of the whale. The subjects treated in Part III., which is much more neatly got up than the other two, are the sun, the moon, the parable of the prodigal son, some rules in grammar, the creation of man, the confusion of tongues, the incarnation and discourses of Christ, English conquest of Bengal, Bengal fruits and herbs, and tides. The subjects treated in the parts hitherto published are sufficiently varied and interesting, but whether this new series will supersede the series of Pandit Ishur Chandra Bidyâsagar in even Christian Vernacular Schools, we greatly doubt. The Ex-Principal of the Sanscrit College in Calcutta is master of a simple and beautiful style of writing which, in the estimation of not a few persons, covers all his other defects. Baboo Bipra Charan Chakrabarti, however, deserves all encouragement for the spirit, the industry, and the skill which he has discovered in this undertaking ; and we strongly recommend the series to those Missionaries who are superintendents of vernacular schools.

THE
CALCUTTA REVIEW.

VOL XXXII.

JANUARY—JUNE, 1859.

No man who hath tasted learning, but will confess the many ways of profiting by those, who, not contented with stale receipts, are able to manage and set forth new positions to the world—and, were they but as the dust andinders of our feet, so long, as in that notion, they may yet serve to polish and brighten the luminosity of truth, even for that respect, they were not utterly to be cast away”—MILTON

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IRANIOBL PRISS J C MCM XI, IRINIEB

THE CALCUTTA REVIEW.

JUNE, 1859.

ART I.—*The Punjab Code of Civil Justice.* Lahore. 1855.

PEOPLE at home are becoming wonderfully intelligent with regard to India, but they are still apt to treat this vast conglomerate of nations, languages, religions and systems, as a unit, and to deduce conclusions with regard to one part of the country from facts ascertained of another. Some degree of inaccuracy may be excused, when we find the Secretary to the Supreme Government of India, during this last year, giving orders with regard to the disposal of certain *Mahomedan Sikhs* imprisoned in the Fort of Allahabad: he should have been called upon to point them out, and he would probably excuse himself on the plea, that he had never left Calcutta, and was unaware that a Sikh was necessarily as much a Hindoo, as a Baptist is a Christian.

It might be supposed at any rate, that the laws Civil and Criminal, being imposed by the Conqueror, would at least be in some degree the same; but such is not the case, as may be illustrated by the following anecdote. Two College friends entered the Civil Service at the same time, and had sat at the feet of the same Gamaliel, but chance separated them, and one drifted off to the Northern Provinces of India, and the Punjab, while the other settled down on a judgment seat within a hundred miles of Calcutta, and the following correspondence passed between them during this very year. The Bengal Judge reports, that he had been two weeks trying one Civil case, with the assistance of Barristers from Calcutta pleading on either side: each lawyer had ten pleas, each plea ten sub-divisions, each sub-division ten points, and each point ten headings. All current work was suspended, the lawyers dined alternately with the Judge and the Magistrate, talked against each other all day, joked with each other all the evening, and returned together to Calcutta, after pocketing thousands of Rupees of the unhappy litigants, perhaps to play over the same game in the Court of appeal. The Punjab Commissioner reports, that in that same interval he had decided fifty cases, Civil or Criminal, in appeal, had held

his Court of Assizes, had in his capacity of special Commissioner hung, or transported to the Andamans, ten mutineers, corresponded on every possible sort of subject with every possible sort of person from the Chief Commissioner down to a poor fellow, whose house had been plundered during the troubles : he had traversed in circuit some two hundred miles, disposed of endless revenue cases, and visited many spots requiring his personal inspection : he had allowed no lawyer, English or Native, to cross the threshold of his Court, and yet the cases which were thus disposed of, involved large sums, the Courts were popular, the people not ill-governed or complaining, and the Code of law was in small compass, and accessible to all. *Still*, with such striking differences as savour mere of different races and kingdoms than of two provinces of the same Presidency, should this Punjabee Commissioner in his furlough venture to the India House, he would be hailed as fresh from the date groves of Bengal : he, the rash, daring Judge, who decided cases by the score, would, from the stain of the original sin of his nomination, or from the mark of the beast that stuck to him on the Register of public servants, be mournfully expostulated with on the lethargy, and unpopularity, of *your* Sudder Court at Calcutta. You might as well consult him as to the average out-turn of milk in the Bengal Cocoanut, or the monthly earnings of a Bengal Chumar.

What has caused this difference ? People at home have never realized the vast expansion of the empire : the same sword conquered, and it was imagined that the same laws might control, the whole country ; and so in Lord Wellesley's time, when we conquered the Northern Doab from the Mahrattas, and appropriated half of the Oudh apple, the Regulations, cast in an antique mould for Bengal, were re-enacted for Hindustan as far as the Jumna. Now the measure of esteem in which anything from the swamps and jungles of Bengal, is held by the residents of the imperial cities of Delhie, Agra, and Lahore, was never very high, and it was very much as if the laws of the Scotch settlers of the new plantations in Ulster had been re-enacted for the sovereign people of Surrey and Middlesex, and in the twenty-five years following their introduction the burden of these alien codes became intolerable, and all idea of extending them to newly conquered Provinces was abandoned. They had been formed on the worst type of English law, as it existed in the Courts of Westminster before the days of Romilly and Brougham : in practice their object was to keep the Plaintiff from meeting the Defendant, to involve the issues, and to decide, if possible, on irrelevant and technical grounds ; to spin out the case tediously, expensively, perversely, and fraudu-

lently, and to make the Courts of Justice a curse and a lottery. Nor were the Judges unworthy of the machine over which they were called to preside: the rejected Collector of Revenue, the dangerous Magistrate, the sickly man with a few years more to serve, the hard bargains of the Company, were avowedly the staple of the occupiers of the Judicial bench, and it cannot be wondered at, that the Courts stunk considerably in the nostrils of Britons and Indians. From time to time the Legislative tinkers in Calcutta produced some delightful new measure, some new variety of technical manipulation, and thus when the science was daily becoming more involved, and the results more uncertain, the want of something in the way of a Code was universally felt. Thus it happened, that in all the Provinces not under the yoke of circumcision, there were little flirtings with codification; gallant Captains, or intelligent Commissioners, produced little bantlings, which were allowed to exist because they were so little, but their objects were laudable, being the confronting of the parties, the precise definition of issues, and decision on the merits. The Regulation Authorities looked on pityingly and sarcastically, until the great blow was struck in the Punjab, and a Code of Law produced, which has now been adopted in Oudh. The tables have been turned, and the system of the Agra Government will soon be ground to powder between the two millstones set in motion by the most illustrious of its own sons, unless a material alteration be introduced.

The little Codular flirtations above alluded to never got much beyond rules of Procedure. The massive legacy of Marshman is but an arrangement of Rules of Procedure, Macpherson's valuable work treats on Procedure only. The Punjab Authorities thought that they were bound to feel their way to a codification of law, *positive law*: they did not resuscitate wholesale defunct codes of the Hindus and Mahomedans, which had no more living influence than the Laws of Justinian; these laws were allowed just weight, when local custom had not abrogated them, or when they were not themselves opposed to the principles of an enlightened Government. They consulted the wants of the people and their feelings, collated their customs; and on open subjects adopted the approved principles of English Jurisprudence.

All laws are modified by an equity,* which is another word for "*the common sense of the majority*." Custom is the soul of all Law in India, as it is of agricultural Law in England. It had long been felt, that unless our Regulation Courts were reformed, we must have equity Courts, and this gave birth to our Special Commissions, and settlement Courts, to do the pressing

* Jus tacito et illiterato hominum consensu et moribus expressum.

work of which the unwieldy Civil Courts were incapable, for we had chosen to go back to the letter of the old Hindu and Mahomedan law, which had long been practically modified by the consent of the people. It is more than probable that these Codes were never in their most palmy days so rigorously carried out, as they have been in the frame-work of the Regulations: thus harsh law had in the new Code to be tempered by the Equity of custom, not in different Courts, indulging in different procedures, and surrounded by fresh shoals of sharks, but by the same Judge, who, after informing himself fully, could decide on reason and equity. As our English Common Law is formed of the debris of Civil Law, so the Common Law of the Panjab is formed of the debris of the Hindu and Mahomedan Codes.

The Legislative Council of India have set up giants of their own construction merely for the sake of knocking them down. What nonsense has been written on the subject of the re-marriage of Hindoo widows! In practice it has always been the case among the ruling tribes in the Punjaub, and the new law now quietly sanctions it. Then again as regards the disinherittance on account of change of religion, and all the wild assertions about property in land being dependent on the fulfilment of funeral rites, we know, that in a country like Asia, land is the only real and tangible property, and owing to the weight of the land tax, and the interference of the ruler, that property is but a limited one; and yet we choose to suppose, that these primitive conditions were ever practically in force as regards land as a matter of law, and not of force. The fact is, that they have not, since the invasion of the Mahomedans, been in force any more than the laws of Leviticus among the Jews, or the Canons of the Church or the Anglican Rubric among the Protestants of England. The Legislative Council prided themselves on the bold forward movement of the "Lex loci," and the Bengalee Baboo frothed, and the Heathen furiously raged together within the cities of Madras and Calcutta, the creations of our own nation, but visit Upper India, and look around the thousands of Mahomedans, Rajpoots, Jats, and other tribes, enjoying their shares of their ancestral villages in undisturbed harmony with their Hindu brethren, with no remnant of any feeling of rancour, no reproach, and no debasement: on the contrary they rejoice with each other on the occasion of their weddings, and mourn together at their funerals. A Hindoo father would regret were his son to abandon the tenets of his ancestors, as an English father would to see his heir become a Plymouth Brother or a Mormonite, but the voice of the neighbourhood, and now the written law of the Code, would not tolerate his disinherittance.

If any traveller were to visit the Punjaub, and to ask on what

basis the civil rights of all inhabitants, of whatever lineage or persuasion, were grounded, a small volume, which he might peruse in one day, would be placed in his hands, and he would be informed, that this volume, in English or the Vernacular, was accessible at every Station from the Khyber pass to the Jumna, where the servants of the Queen of England represented English power and English justice to the people of the country.

We have, during our wanderings, stood in many Courts of Justice in many and far different countries and cities, from the venerable halls of Westminster to the Athenian Areopagus, from the practical Courts of France to the disreputable and disorderly justice shops of Turkey, and we state without fear of challenge, that in no Courts in the world have the poorer classes such ready access to their Rulers, such a certainty of being heard, and of something being done to right them, as in the rude, and sternly rapid, Courts of the Punjaub. Much of this is owing to the unbroken chain of responsibility, which connects the head of the Government with the smallest official of the lowest grade, but much more to the existence of the Code. What a picture of native life does the perusal of such a Code afford, for it must be remembered that it deals with realities, not with fictions. We imagine first the Court, crowded with the parties themselves, into which no lawyer nor Vakeel dare enter; the strange contrast of physiognomies, the endless variety of demeanours according to the age, the sex, or the religion and residence of the litigants. Mark the traits of individual character which come out. Some weak old woman takes up a cause, not her own, and with undying energies carries it day by day through every Court in the Provinces, and has exhausted the bounds of justice, before her fancied injury has been atoned. Some haunt the Courts, and take a melancholy delight in processes. Some sue, as paupers, for fabulous sums, to which they have no manner of right, but to which their ancestors once laid an unfounded claim. In comes the agriculturist, the sturdy yeoman, fresh from his retired village, from his oxen and his jungles, and so oblique is his vision, so entirely convinced is he of his own right, that he denies everything which seems to tell against it, and proves a great deal too much; in come the witty town people, the disreputable fellow with curls down his back, the red-turbaned banker, with books kept in a dishonest ambiguity, and trimmed this morning for a purpose, the rascally notary reminding us of his type and representative in England by the cringe of his gait, and the speciousness of his delivery; there sits a young wife, with her boy, who has wheedled a dying old man to disinherit his children by the elder wife, and as a fair pendant, there is a trio of grey-bearded shopkeepers, who have a scheme to defraud

a baby brother, the offspring of their father's old age, of his share of the inheritance. Over the hubbub of voices is heard from time to time the form of solemn asseveration, which passes the comprehension of the rustic witness, for he will not repeat after the Court officer, and interrupts the form of oath by blurting out the facts of the case, with which he is full charged; some, reminded that they are to speak the truth, repudiate as an insult the notion that they could do otherwise; sometimes by a mistake a Hindoo is sworn as a Mahomedan, or a heavy Sikh, who has been stolidly repeating, suddenly brightens up, when the form ends with the words of his own national salutation—"Health to the Guru," which he shouts out, as if he now thoroughly understood what he was after. Hundreds leave the Court with a curse on their lips, at not obtaining what they sought, but worse than the curse, which falls lightly like a spent shot to the ground, is the fawning blessing of the party who wins, but who fails to recognize the stern justice of the decision, and only fancies that he detects the good will or the partiality of the Judge. Alas! alas! weary days, and sometimes weary nights, for the mind has to take in the all the details of each complication in an intellectual grasp, and often in dreams will the odious skein of thought untwine itself again, and the night's rest be lost in trying to solve hopelessly involved intricacies, and to arrive at a decision which conscience can call just.

But the scenes, suggested by these pages of the Code, are not confined to the narrow walls of the Court. Busy Fancy carries the reader into boundless space, and, as each class of cases or rule of law developes itself, the whole is enacted in the retina of the eye, for the actors and the local features are well known. We see the crowded Bazaar, the very store where the cloth was bought, for the price of which the action is now laid; there—there is the house, where the foolish old man took home his second wife to be a very Helen to his family; those men, sitting in council on the steps of the temple of Siva, are planning the very scheme of fraud which you have spent the morning in traversing; in that shop the witnesses are affixing their seal to a deed, a few steps on, two grey-beards are trying to settle a string of disputed items betwixt two partners, who knew each other too well; that belted messenger has just served a process, and that crowd in the lane yonder is assembled for a sheriff's sale of the property of a defaulter; and far away from the busy market place, in some distant village, beneath the branches of a wide spreading preepul, a contract of marriage between two children is being made. Seated on benches, consecrated for that purpose by old custom, are the notables of the village; there are the dignified salutation, the conventional phrases, the distribution of

sugar, and all the details which custom may have sanctioned. A few years, and another scene is being acted: the parents of the betrothed refuse to adhere to their pledge, then come the wordy war, the appeal to their Gods and the whole village, the vain attempt at reconciliation, the old grey-beards trying to reason, the loud laugh of impetuous and contemptuous youth, the mutual abuse and recrimination, and then the rushing off of one or other, to buy a stamped paper, and file a petition in Court.

No wise man despises the customs of a great people, and no foreign Government can afford the waste of power in doing so; still the rulers of the Punjaub find themselves compelled to give decisions opposed to public opinion, and in fact try to mould it to a more enlightened form. Thus it happens that many a respectable suitor goes home dejected, for we cannot restore wives forcibly to their husbands, or allow them to be sold like cattle, and it is a great blow to a man passed fifty years of age to find for the first time of his life, that it is of no use being a Brahmin, where all are in the eyes of the law equal; often have we heard melancholy regrets on the part of those, who were a little elevated above their fellows, that the new Government had no respect for the respectable class, and the respectable customs of the country. During the first year of occupation we asked a native friend, of what the Punjabees chiefly complained under the new regime: the answer was remarkable, "that we allowed the village trees to be cut by the camp follower, that we did not compel every runaway wife to return to her husband, and thirdly that *we did the evil deed*," by which dark phrase he afterwards explained, that we allowed cows to be killed. We on the other hand availed ourselves of the assembly of the agricultural classes for the purpose of settling their revenue, to impress upon the headmen of each village, that, whatever codes might subsequently be adopted, they must abandon three objectionable customs, which were "the killing of their infant daughters, the burning of their widowed mothers, and the burying alive of lepers;" the promulgation of these dogmas, which each headman was obliged to repeat, as a creed of faith, created a great sensation, and the Zemindars went home to their villages chuckling at the considerable reduction of the Government demand, and chaunting the first rudiments of the sixth Commandment. At a farther illustration of the depth of moral degradation to which the people, in spite of their valour, wealth, and independent character, had sunk, we may mention that the descendants of the founder

* It is scarcely necessary to add that this privilege was not conceded to the Bedces, the lineal descendants of Gooroo Nanuk: on the contrary they were warned that the practice would be continued at the peril of their lives and estates. At the time

of the Sikh faith gravely petitioned, that to them might be preserved the time-hallowed privilege of killing their daughters; and, as if to shew how ridiculous poor human nature can be, while the Hindu petitioned loudly and longly that the slaying of cattle by the Mahomedans might be interdicted, the Mahomedans, in the flush of their newly acquired liberty, requested that the Hindus might be forbidden to cut off the heads of goats according to their practice, and be restrained to the more orthodox, Levitical, mode of cutting the throat of the poor beast accompanied by a prayer.

A three-fold decision of civil suits has been humorously made among the Natives, to which, being very comprehensive, we may conveniently adhere—Money, Women, Land. We propose to notice each class separately. The cases under the first class are of endless variety, embracing the petty parole debt or loan, and the complicated accounts of Bankers and Merchants, extending over a series of years. The great system of credit in India is a real wonder, and the most striking proof of the high civilization of the people, and the best reply to those who accuse them of barbarism. Civilized they are, but in the oriental type, and the extent to which credit is now unduly given, is partly owing to the laxness of their habits of business, and partly to the restriction of the monetary currency. In India, as in other oriental countries, there is no fixed price to anything but grain, for everything else a bargain has to be made: in England the wholesale dealers have settled the price, and nothing remains to the honest retailer but to sell; in India every settlement of account is a complication, and there is a painful feeling in the mind of the Judge, that either party is trying to get an undue advantage over his adversary. Endless are the varieties of trades, the wholesale dealer, the travelling merchant, the banker, the broker, the tradesman, the great commercial houses, and their agents and correspondents, and step by step we descend to the miserable retail dealer of convertibles, or costermonger, but all give credit, all fight to the last farthing. Money is,

of our accession there was not a single female in the Bedec tribe: the relation of sister, aunt, and daughter was unknown. Year after year the census is now taken, and during the past autumn we had a review of all the little Bedec girls, amounting to nearly two hundred, who have been born under our rule at the single town of Derah Baba Nanuk: the children varied from eight years to a few months, and should the British power be swept away, these ransomed lives will remain as a monument of our humanity: the males of the family are computed at two thousand, and the females can scarcely exceed three hundred, and it will take thirty years, or more, to bring the two sexes to the proper equilibrium. Some of the little girls had been married, but no Bedec has yet attained to the honour of being a maternal grandfather. Yet these were the most sacred, the most powerful of the Sikh tribes, at whose feet Maharaja Runjeet stood, who were loaded with presents, and had become the curse of the country. Facts like these indicate the character of the people for whom we had to legislate.

the one, and only fulcrum, on which Indian Society turns: the revolution of the wheel of fortune has raised peasants to thrones, and reduced princes to the streets, the line between the unsuccessful felon, who is chained in the gaol, and the successful freebooter, who, clothed in silks and shawls, is honoured by the British Government, is a dubious one. Rank therefore, or virtue, without money, just go for nothing: no sooner does a man, of whatever degree he may be, get a little money, or employ under Government, than he improves his food and clothing, buys a horse, and goes about with a train of followers, raises his home a storey, shuts up his wife behind brick walls, plants a garden, and becomes in common parlance "a great man;" the position of his children is altered, and, when the fortune is exhausted or the employment ceases, their future is embittered. A man of low caste, when he gets rich, tries to improve himself in that respect also. We have known a Chumar, on whom fortune smiled, pass up into a Kubal, but with Hindus this is a matter of difficulty. Among the Mahomedans it is wonderful how the race of the man betters itself with his clothing: the poor needy Shaikh, dealer in grain, in which denomination most converted Hindus merge, becomes a Koreshey or Ansary, and, if the market be favourable, he expands into a Syud. Of this we have a notorious case in the family of Azizooddeen and Noorooddeen, who first cloaked their origin as Barbers under the affected humility of Fuqueers; as their descendants became wealthy, part have become "Ansars," and part "Syuds." In the same manner Nuwab Imamooddeen, after plundering the fairest provinces of the Punjab, has lately discovered that his Hindu ancestors were Rajpoots, and not "dealers in wine."

The Civil Court becomes the favourite arena of the whole population: every kind of claim is brought forward, debts that have run on for years in books of the rudest kind, are cooked up and entered with new dates; the release of mortgages is sued for, which have gone for generations, where the home has been rebuilt frequently in the interval; one man sues for money lent by his deceased father to the deceased relation of another; claims of inheritance, according to law or custom whichever suits the claimant; claims for jewels deposited, or pawned; claims for arrears of wages, balances of account, injury to caste or honour, are all thrust in. The wonder is at first, how these matters were under the former rule disposed of, but a little reflection will show, that they were not *disposed of at all*. The Courts are at once a novelty and a curse; the period of limitation of suits is being gradually reduced from twelve to six years, and now, except for bonds, to three years, and eventually it may be still further reduced to twelve, or six months in some cases. As liberty may

degenerate into license, so too great facility for litigation rouses the worst passions; like strong drink it overpowers weak heads, and demoralizes the whole population, by the rancour and perjury which it produces.

The second great class of civil actions relate to women: it has been broadly asserted, that there is no case brought forward in the Criminal Courts, which cannot be traced directly or indirectly to that after-thought of the Creative Power, whose special vocation it has been to bring woe to man. There is no doubt also that a very large proportion of civil actions arises in every country from this cause, simply because there has been from the beginning of human affairs an attempt to keep them down, and debar them from the equality to which they are entitled. It is self-evident that the Old Testament was written by a man: the tenth Commandment was clearly reduced to that vehicle for ideas, which we call "words," by one of the male sex; had Miriam been commissioned to legislate to the Israelites, she would probably have expressed herself otherwise. However unjustly trodden down, nature will raise its head, and is generally triumphant; any unjust law of restoration against the equity of things is sure to strike in the rebound. Thus it has happened as regards the law of women both in England and India. The wife has often been the ruin of the house in both countries: in England, though denied a legal existence while under coverture, though her property has been at the mercy of her tyrant, though unjust laws have prevented her being heard in the case which affects her honour, her fortune, and her status, she has generally won in the end, or made her victor rue his success.

So also in India. From her earliest hour she has been oppressed: no congratulations mark her birth; her poor mother's heart fails her and her groanings recommence when she hears that a female child has been born; no care watches over her childhood to mark the budding beauty, and to develop the dawning intellect; if by the mercy of the British Government, or the humbleness of her caste, she escape the opium pill, or the sly pinch of the jugular vein designed for her to preserve the honour of the family, she grows up untended, unwashed, uneducated, and very often unclothed. In infancy she is disposed of by betrothal, and so much cash, so much grain, so many trays of sweetmeats find their way to the family-dwelling, as the price of her charms, and the barter of her affections: in her non-age she is married, but no honour awaits her even on this occasion, the bridegroom is the great object of the ceremony, but where is the bride? Hired courtezans are dancing for the gratification of the men, while the women of the family are huddled away in closets, or allowed to peep through screens. Poor hapless daughter of Eve!

Eros has no existence for her; she never listened to honeyed words; she knows nothing of the honour of being wooed, or of the glory of being won; not for her the indistinguishable throng of hopes, and fears, and gentle wishes, till the hour arrived, when in granting favours she was herself thrice blessed; she knows not the blushing honours of the bridal bed; her father arranged the transaction with the boy's father; her family barber looked at him, his family barber examined her, noting her defects and her merits; the male relations ate, and the Brahmins prayed, muttered, and ate also, and she had a ring thrust through her nostril, and *was a bride*. A few years afterwards when she had arrived at a nubile age, amidst the conventional howling of all the females of the house, she is deported with a proportion, fixed by custom, of cooking pots, clothes, and jewels to the house of the bridegroom—a heedless lad, whom then for the first time she sees, and she is thrust into another labyrinth of dark passages, murky yards, and musty closets, resembling so far the paternal mansion, amidst a crowd of mothers-in-law, stern aunts, child-mothers, and widowed girls, who represent, and make up, the hidden treasures of an Indian home.

Nor in married life is her situation much improved. Owing to the universal habit of whole families herding together, and the comfortless arrangement of dwelling houses, for years she never sees her husband except by the light of the chaste moon on the flat roof of the mansion, or by an oil lamp in a closet; he is often absent for months and years; to the end of her days she never appears unveiled in his presence before a third person, not even her children; she is never addressed by her proper name; if she prove a mother, she has at least the blessing of her children and teaches them to fear their father, but if her husband's lust of the eye fall elsewhere, she has a hateful colleague thrust in, with whom life becomes one continued jostle of persons, choking of choler, and conflict of children, and, if she be childless, she mourns her hard fate, and submits. Her sin has not been forgiven in child-bearing, and she even cherishes the child of her rival, for the want of something to love. We pass over in silence the angry words, the neglect, the cuffs and even blows, that must be the case in some households in a country where no shame attends the act of striking a woman; we pass over such outrages in silence, for in England not many years ago, a mother, in bringing a charge against her son, stated in evidence, that he *beat her as much as if she had been his wife*: in England there are savages still.

But the Indian wife has her revenge—the time comes, and the *woman*. In the declining and obese period of life, when passion is lulled, and the only object of the male animal, who has

become seedy and weedy, is to be respectable, when the wife has become haggard, wrinkled, toothless, and hideous, she can wring his heartstrings, she can expose him to the gossip of his neighbours and to the tittle of the Court. She sues him for alimony, or maintenance, or—that fertile source of vexation—dower, or for jewels, which she declares to be her separate property, she carries her wrinkled face into Court, and even lays bare her chaste bosom, rivalling a sun-dried mud bank more than the conventional snow drift, denounces her husband, discloses his weaknesses, and derides his defects. She thus revenges herself and her sex of many a slight, many a cuff, and this must go on, and he must bear it, much as he looks forward to the day when it will be his special privilege to expend a few copper coins in faggots to consume the carcass of the woman who had been his torment, unless she outlive him, when she will not be behind hand in each detail of conventional woe. Still, in spite of all these disagreeable circumstances, the Courts are pestered with ridiculous claims of brothers-in-law, or cousins, to possess themselves of the persons of widows, in whom they imagine that their family have invested capital, of which they wish to enjoy the interest: we have known many long fights with regard to the hand of very undesirable ladies betwixt the party who considers that he has a legal remainder, and the party who is in actual possession, the one pleading a species of tenure of tail female, and the other a tenure “in corde.”

The wicked Novelist, Balzac, has somewhere written, that a man should not venture to marry, until he had at least dissected one woman: we would warn the Hindoo to witness one such civil action, ere he add to his family. As far as we personally know such ladies, (and our acquaintance is confined to the arena of the Cutcherry) they are apt to be unamiable, unguarded of speech, rather spiteful, and very unreasonable, certainly not the ministering Angel with whom you would wish to share the Arab tent; none so earnest in appeal, none so unruly and obstreperous, and the Judge is fortunate to have a table and rail between himself and the litigants, and not to have a long beard to tempt insult, for the Sikh lady is apt to run to bone in formation, and would be a powerful enemy in conflict. Nor do they persecute their husbands or their male relations only; none so pertinacious against the world and its institutions at large, as that wretched widow, who has been tempted by some devil to waste so many weary days and weary nights, for the possession of some miserable hovel, the value of which would never equal such an expenditure of temper, credit, words, or hard cash. A personal experience of some terrible widows, clasping your knees at every unguarded opportunity, shrieking at every

corner, vexing the spirit at uncertain hours, has often tempted us to sympathise somewhat more with the unjust Judge, who has been held up as an example for as to avoid.

And all this has arisen under our rule, all this trouble is authorized in the Code, and it exists in the necessity of things. It is dangerous to insult the feelings of a people, yet here we must run athwart their most deep-rooted prejudices, and the Judge, though satisfied that with a conscience and principle of rectitude he could not decide otherwise, returns daily to his home, deeply conscious that he has wounded their feelings on the tenderest point. Their whole practice with regard to betrothals is iniquitous. • Women are transferred like cattle; circular contracts are made, by which a whole series of marriages is arranged, grown up women tied to boys of tender years, little girls made over to old men; brothers sue for forcible possession of the widow of their deceased brother; the woman is treated as a chattel or a domestic animal, of which the joint property is vested in the whole family. The conscience of our jurisprudence is opposed to all such transactions, and they cannot be upheld: great is the wrath and loudly muttered the dissatisfaction of many a middle aged country gentleman, who, from his age and time of mind, cannot see the drift of the policy. Moreover the evil has been aggravated by the novelty of our rule, for no sooner had the British Army crossed the Sutlej, than it got about that we were governed by a Queen, and the Company was believed to be a female of some denomination. This gave birth to a feeling of independence among the womankind of the country; hence a quarrel and a minature rebellion in every house:—the astonished Sikh worsted at Sobraon at least honourably, had in his own home to carry on a disgraceful contest with a loud tongue, cased in a body which he no longer dared to chastise, craving for more jewels, more clothes, and threatening to avail itself of its newly acquired liberty.

This dislocation of domestic relations is brought about by polygamy, and child murder, which by destroying the numerical equality of the sexes, has given women a money value in the market, as a thing to be sold, and, when bought, to be kept possession of. Polygamy may be dismissed in a few words. None of the respectable middle classes tolerate it: in extreme cases of childless husbands the privilege may be under a protest made use of, for to a Hindu it is a dishonour and sorrow to be childless: the poor cannot afford it: it is only among the wild beasts of the pseudo-aristocracy, that the custom prevails to any extent, and they, as a class, are being extinguished. A law to place polygamy under civil disabilities might be passed without exciting a remark, for it is as unsanctioned by the feel-

ing of the people, as excesses of the same character, though developing themselves in the European form of profligacy and adultery, are against the feelings of the people of England: indeed now that the power of the whip and the fetter has been removed, the custom is not likely to be much practised. It was all very well for a Chieftain residing in a fort with four bastions to indulge in the luxury of a separate wife in each tower, or a banker with two or three dwelling-houses might find it feasible, but for a man with limited means the experiment would be dangerous, and even in ordinary single-handed contracts, tricks are often played; the barber of the bridegroom is bribed, and at a time when it is too late to recede, the bride is found to be one eyed, marked hideously with the small pox, or imperfectly developed in mind or body. A contract, based on misrepresentation and fraud, is but a sorry start in life for the young couple.

Female infanticide lies deeper, as it is based not on individual passion but family pride: it must have taken some years, or perhaps generations, to stamp the iniquity in its present complete form, to drown all feeling of humanity, shame, and manliness, and it will take some time to destroy that feeling. The subject has been misunderstood: it is not only the undue expenditure at weddings that led to the crime, as this would not have induced the wealthy in some particular tribes to adopt a practice which their neighbours equally wealthy revolted at. The facts are these. Indian Society is divided into castes, and each caste into tribes infinite; a man must marry one of his own caste, but never one of his own tribe; as long as these tribes are relatively equal, no trouble would arise, but as in process of time one tribe became conventionally more honourable than the other, and as it is a point of honour never to give a daughter to one of a lower tribe, there must be certain tribes, who may have equals, but can have no superior, and, if there should be no equal, as in the case of the Bedee tribe of the Khutree caste, there is no alternative but dishonour or female infanticide, and of course they chose the latter. Let us illustrate this position further. Suppose that the great caste of Smiths had from times beyond the memory of man being divided into tribes, the William Smiths, the John Smiths, and Andrew Smiths, and so on. Now by the necessity of the case a Smith must marry a Smith, but not one of his own cognates; and all would go well, until the disturbing cause of relative rank happened to interfere. Unluckily one of the ancestors of the Andrew Smiths was said to have been an East India Director, Lord Mayor of London, or a popular low church preacher, or a personage of some such distinction as would lead his descendants, who were apparently equal, to consider them-

selves relatively better than the William Smiths: the sad consequences of this absurd distinction would be that the Andrew Smiths as a tribe, sooner than give their daughters to the William Smiths or the other inferior tribes, habitually practice female infanticide. 'Hinc illæ lacrymæ.'

But ever and anon, amidst this wilderness of the affections flashes out on the part of that sex who can forgive their tyrants every fault, even infidelity, with a bright light some instance of the tenderest, because unrequited love. The voice of the country, and tradition of the Golden Age, are against such treatment of the weaker vessel, and generation after generation have sympathised with the pictures of truth and fidelity, which have been pourtrayed so vividly and with such sweetness by Valmiki and Vyasa, the great heroes of epic poetry, and gathered round many a fireside have young and old alternately wept and smiled at the tale of the sorrows and triumphs of Sita and Damayanti. Still in spite of their social degradation, lives the proverb, that though a hundred men form only an encampment, one woman constitutes a home: still inconsistently the dearest affections and nicest honour of the great people of India are interwoven in the veil which shrouds their females. They plunder provinces to load them with jewels, and then complain when restitution is demanded: they worship their mothers and elder relations, treat their wives as so much dirt, and ignore their daughters, yet will those wives travel long distances to visit them in prison, and sacrifice all to get them released, and scenes often occur which reconcile us to the oriental development of humanity. The neglect on the part of the selfish Lord, often displays itself in as ludicrous a manner as the devotion of the wife. It is the custom for Hindus on the loss of a relation to shave their beards by way of mourning, and we once asked a Rajpoot, who had lately lost his better half, why he had neglected this attention. The reply was, that he would as soon think of shaving his beard for the loss of a pair of old shoes. On the other hand we once overtook a lone female on our road towards the Ganges, and she informed us that she was journeying many a league to commit the remains of her Lord to the sacred stream. We looked back expecting to see some modest conveyance, on which these melancholy reliques were deposited, but there was nothing: on inquiry she undid a knot in the corner of the sheet in which she was clothed, and showed us a tooth and a bit of calcined bone, which she had picked up from the cinders of the funeral pile, and which she considered to be a *sufficient* representative of her husband.

The third great class of cases relates to land. Ordinarily such cases are much involved, and in Lower Bengal their decision is

surrounded with almost insurmountable difficulties. But a wise policy has in the Punjaub set all these matters at rest, and from the confusion which prevailed, order and certainty have been extracted. Many and conflicting were the rights to the possession of the fruits of the soil, and to the soil itself: all have now been reduced to three great heads, the rights of the cultivator, the rights of the owner in fee simple, and the rights of the assignee of the Government share of the produce. The amount of the share demanded by Government having been limited, property at once acquired a new value, and special officers have been deputed during the last nine years to carry out the details of this great work, but, though the machinery is different, the code of law is the same, and the right to enjoy, and the power to alienate, are guaranteed and defined.

The leading features of the Code are liberal and practical, opposed to useless form, and trusting rather to a strong and honest executive, than to judicial check. The fiscal and executive officers of the Government are free from the molestation of civil actions, but let them abuse the power confided to them, and the strong hand, which set them on the curule chair, will be raised against them and destroy them. It is an absurdity that the business, which is done by one department, should be reviewed and reconsidered by another; it sounds constitutional, but it is merely vexation of spirit: a sharp, and strict, appellate Court prevents all abuse; a simple people are mystified by the conflict of departments, and wisely therefore in the Punjaub all functions are united. India has not yet got beyond the patriarchal period. We are of opinion, that even the older provinces would gain by a return to the simpler types of Asiatic rule.

Every kind of evidence is received "*quantum valeat*," and the Court judges of the value; parties may be witnesses in their own cases, and the Court may itself seek for evidence from whatever source it like; it will not accept at second-hand, what can be obtained more directly. The rigour of the old written law is tempered by the equity of the "*lex loci*" and "*lex personæ*," the interpretation of which is now neither left to venal Arbitrators, to Pundits, or to ill-instructed Judges, but is embodied in leading principles, which are open to revision from time to time; and by degrees it is hoped, that this unwritten law may be codified, and a more precise line drawn betwixt the mutual confines of conflicting customs.

It would be rash in a word to condemn the ancient Civil Code of the Hindoos, and the more modern and wider spread Code of the Mahomedans. They represent the wisdom and experience of many generations, and were drawn from the same fount as the Levitical Code and the Roman civil law, but are tinctured by

the age, and the clime, in which they were committed to writing: in some things they are in advance of even English legislation. We are but advancing by slow steps to the promulgation of the doctrine, admitted hundreds of years ago by the Hindus, that the wife's savings are her own: a natural settlement protects every woman. We are the savages and barbarians in this matter, on the other hand the Hindoo law is loaded with an intolerable weight of disqualifications, of which we have now purged it, and the Courts are freed from the absurdity of making a man take an oath which is not binding on his conscience, and the iniquity of depriving a man of privileges, because he happens not to be of the dominant persuasion.

Under the Punjaub Government exist the time-honoured domestic institutions of polygamy and polyandry, though on the latter the Code is silent. Each is based on a similar iniquity, and is derived from the old patriarchal habits of licensed concubinage. There exists also that right of Divine, which the opponents of this measure dignify with the name of Successive, as opposed to Contemporary, polygamy. Of the laws of inheritance there exists every variety—every vagary of poor human Nature, except the unnatural preference of one child among many, which European Nations call "Primogeniture;" that law, denounced by English jurists as the most unnatural that Legislation ever saw, but to which custom has hardened us, is in India confined to the succession to thrones, and as such unknown to this Code. But here we find legalized the Mosaic law by which a man may marry the widow of his brother, and this liberty is outwardly symbolised by the casting of a sheet, as Boaz did three thousand years ago over Ruth. Obedience to parents is inculcated, but as a moral obligation only, and though a child of tender years will be restored to the possession of the parent, at the age of eighteen entire liberty is conceded, and if the child, although a legal minor, be of a mature and competent understanding, and a free moral agent, with the single exception of married girls, the power is conceded of making an election with regard to place of abode, mode of life, or religious persuasion. Such is the law, and, though no case has as yet occurred, such would be the practice. Liberty of conscience can go no further. On the other hand the duty of mutual support between parents and children, and elder and younger relatives, is absolute.

The right, which orientals claim of killing their infant children, deserting them, selling them, and all the harsh features of the "jus paternum," is distinctly negatived. Where the code is weak, is in the matter of marriage: the religious sanction has been rudely torn away from the tie, and it is in effect reduced to

the status of an ordinary contract, without the formality of registration, which in civilized countries has been always introduced at this stage: this, coupled with the unlimited power of divorce, the admitted license of concubinage, and the absence of any reproach attached to general profligacy, has led to a great increase of immorality. Marriage in the eye of the law has thus sunk down to a voluntary and temporary cohabitation, and the advantages of legitimacy over illegitimacy are scarcely appreciable. One of the greatest nobles of the Punjab, and a member of the late Regency, is the issue of a Jat-father by a cast-off Rajpoot wife of Muharaja Runjeet Singh, and yet he succeeded to his inheritance: adultery is indeed punished criminally, not from any abhorrence of the crime, but to anticipate the vengeful sword of the injured husband, and civil damages are also granted, and a neat distinction drawn betwixt breaches of contracts of marriage before, or after, the solemnization of actual marriage. The root of the evil is in the practice of marrying children without their consent, and as long as this exists, the evils described must follow in its train. What is really required is the establishment of a Court of Conciliation, that, when anybody complains that a breach of contract, or of the marriage vow, is about to take place, the offenders may be summoned and warned of the consequences, or, should the complaint be a ridiculous one, the law be explained.

Sad is the position of orphan minors in a rude state of civilization, with rights undefined and possession *every* point of the law. Old Homer must have been an orphan himself to have been able to tell so well the sad passages to which the orphan even of a rich man may be reduced, with none to fight his battles, but the widowed mother, who generally in such cases is fired with an unconquerable spirit. Over minors the Code has flung its protection most completely, but, as if to shew more completely how entirely matrimony is ignored, the well known maxim of European law is reversed, and the Code adopts a strange but justifiable course of making over an illegitimate child to the parent most able, or most willing, to bring it up properly: a most difficult subject indeed it is in practice how to deal with these little Ishmaels, who certainly ought never to have existed, yet they are found in most respectable families, have a status in Native Courts, and, as stated above, inherit. We have known instances of the child of a Mahomedan mother taking up his position as a Hindu.

Another result of early marriages is, that the sons grow up to their prime, and their sons again, while the father is still in his manhood; children by different wives, long since deceased, press on their parents for subsistence, who on the other hand has just married a young wife, and is entirely under her influence, and is perhaps concocting schemes by which the portion of his elder

children may be reduced, for he cannot disinherit them. Then is the time for bringing forward obsolete family customs, so as to enable the father to divide "per stirpes," instead of "per capita," that is to say to distribute his fortune in shares according to the number of his wives, and not of his children; oftentimes the father is induced for the sake of peace to make a distribution of his property before death, and this under certain limitations is recognized by the Code.

The law of adoption has in India a peculiar weight owing to the earnest longings on the part of a Hindu for a son to carry on his name, and to perform certain religious ceremonies. In this Code of course the law is recognized as regards all chattels and allodial property, but not as regards assignments of the State Revenue, or Pensions. It is painful to see how entirely this subject is misunderstood by the loud declaimers against certain orders of the Government. In Europe all successions in sovereign families are governed by peculiar laws, while the ordinary law of inheritance among the community remains untouched. In Germany, and France, daughters are excluded: in England contrary to the common law the eldest daughter inherits: so in India the eldest son succeeds to sovereignties, and among Mahomedans the kingdom goes to the one most capable of rule: following this analogy, it has been wisely ruled that the succession to assignments of revenue, such as Jaghecdars, Inamdars, should be ruled by its own peculiar laws, and adoption excluded: so in England when pensions are granted for one or two lives, they are limited to lineal heirs, and in the rare instances where the liberality of former Parliaments has granted permanent assignments on the revenues to distinguished servants, adoption is never dreamt of.

The way in which Natives of India live huddled together in one enclosure, sometimes sharing their food, sometimes separate, passes all description: no distinct accounts are kept of their domestic or their business expenditure; jealous of any inquiry into their means, they throw a mist over every transaction, and when a complication arrives, when a young widow and child are left to take their chance against the other grey-headed sons, who have long been in possession, then comes the struggle as to what is joint property, how much belonged to the elder sons, as their personal profits: sometimes a virgin widow, who by the Code inherits all the property of her lord, is made use of as a weapon of offence by her own needy relations, to torment a wealthy relative. Generally speaking there is no innate sense of right in any one: litigants can rarely be brought to one common standard, their pleas will be inconsistent with each other, each party

will demand more than they have a right to, and support the same by appeals to God, to men, and the market place.

The Code is free from that blemish which pervades the practice of all the other Courts in India, and which from time to time is evidenced by Acts of the Legislature. No person, or class of persons, is exempted from the law or the processes of the Court. It would be hoped that Macaulay, in his preface to the draft of the Criminal Code, had exposed this crying sin of the Indian Legislation: are the Court's evils in themselves, that the rich should be exempted? Is it any honourable distinction to be above the laws of the country, or an out-law? and yet in all the towns of the North West Provinces existed families, who vaunted of being able to incur debts without running the risk of being compelled to pay them. It is worthy of remark, how much the old class of public servants took up the cause of the Indian Aristocracy, when their sympathies would naturally have been with the middle classes: but the fact is, that the Rajas and Chiefs could lend elephants, give shooting parties, and be generally useful, while the annals of the poor in India, as elsewhere, are generally very dull, and their persons very dirty.

With regard to contracts, owing to the lax way in which business is conducted, the Code has been obliged to abandon all form, and writing is not even required: the Judge is required to look to the spirit of the contract, and the absence of consideration is not a defect. The Code has shirked the subject of benamée, or fictitious holdings, which vex the souls of all honest men both in the North West Provinces and Bengal, and yet are so akin to estates in trust in England, that the favour of the Legislature is on their side. On the much disputed subject of Pre-emption the Code is quite distinct, and has the merit of being the first to develop the doctrine, the creation of Indian jurists, to its full and logical conclusion. It is very true, that all such restrictions on the free transfer of property are utterly opposed to political economy, but they are approved by public feeling, and have a strange political significance now, when we contemplate the state of the land tenures of the North West Provinces. A man who wishes to sell, or mortgage his share of a hereditary coparcenary landed estate, must make the first offer to his partners, and can only call in strangers on their refusal, and to prevent collusion with strangers by fixing a fictitious and exorbitant price, the value of the share is to be ascertained by a Jury. It is moreover extended to cases of sale of houses in cities.

On the other hand the Code is quite silent on an equally important subject: the Roman civil law lays down, that a man's

right in his own property is limited by all the rights possessed by other persons, and what the law of pre-emption does for the neighbours, when a man quits his property, the law of Servitudes, or Easances, does, while a man occupies it. Houses in Indian cities are clustered together, as they were at Rome: by the action of the law of inheritance they become divided, and sub-divided, the upper story falling to one share, and the ground floor to another: hence arises a complication of rights of light, of access, of water-spouts, of gutters, and other details innumerable, and excellent grounds of quarrel they make, and well they are fought out; the same thing happens with regard to the shares of landed property, when the rights of water course, of pathway, of driving cattle, are fertile sources of dispute: every description of property is liable to its urban, and suburban, servitudes.

On the law of mortgage also the Code appears to be very defective: it seems at first glance but fair, that no lapse of time should be a bar to the recovery of a property lent, deposited, pawned, or mortgaged; but on the other hand it is in the interest of the community, that there should be some bounds to litigation, and when it is considered how terribly vague and lax the people are in their proceedings, how narrow the bounds betwixt pledge and mortgage, mortgage and sale, what confusion prevails on the fact of possession or non-possession, what difficulty there is to prove the deed, and to decide whether it was a condition that the assessment should clear the interest only, or go towards extinguishing the capital, whether the mortgage was a simple or a conditional one, we arrive at this conclusion, that lapse of time and publicity are elements in such transactions, and that periodical settlements publicly registered should be required, or the right allowed to die, for nothing is thought of mortgaging a miserable tenement for its full value, leaving the mortgagees for generations in possession with right to repair and rebuild, and the time of the Court is possibly wasted on the suit of some distant descendant to recover.

In the law with regard to Agency, Bailment, and Partnership, the object is to protect the public, and "Notice" is the hinge on which the whole practice turns: everybody is to suffer for his own negligence, or fraud: if the partners give out one thing, and really are another, they suffer: limited liability is allowed, if notice be given, if in spite of notice the public choose to think otherwise, the public suffers. So in Bailment, greater or less care depends on the advantage gained by either party, and the duties of the agent to his principal and the public, and the responsibilities of the principal, are defined. The rules with regard to insolvency and disruption of partnership, are good; the only difficulty arises from the absence of any public medium of

notifying the fact, furnished in European countries by the Gazette. A great drawback to all settling of accounts is the careless way in which the books are kept, the good humoured confidence in the whole world's honesty, and in *your own*, which is evidenced: procrastination is the order of the day, but, when a dispute arises, the most violent passions burst out, and the undue confidence is at once converted into unjustifiable suspicion, and leads to most rockless charges. Men, who yesterday believed every thing, will to-day believe nothing; such cases are most difficult to dispose of, but the Courts are armed with power to check all fraud, and any kind of collusion.

The existence of a correspondence of bankers over the whole Peninsula, in the form of Hoonbles, is one of the greatest proofs and greatest triumphs of the ancient civilization of the country, and it is a marvel to contemplate how well the system works, and how seldom bad faith is complained of. At first sight nothing is so easy as to effect a forgery, but in practice nothing is so difficult, for security is demanded before payment, and that is the keystone of the system. The responsibility of the drawer is maintained beyond what seems just in European acceptance, and he is bound to ascertain the fate of the bill which he has drawn, and get the receipt of payment. This chapter of the Code is especially interesting, as it is the result of oral conference with the merchants of Amritsur, a city which rose to be the greatest mart in Northern India in spite of Sikh rapine and misrule. Although the firms of this city have correspondents in Europe, yet they are still so far Asiatic, that they always keep a certain amount of specie buried in their houses to meet emergencies, as it would be the ruin of their credit to have to go out to borrow, and there is no great National Bank, in which they can lodge their reserve.

In favour of the heirs of deceased the severity of the patriarchal system is modified, and the liability of children for the debts of their ancestors is limited to the amount of assets received. In the matter of interest, which is positively prohibited by Mahomedan law, and which has to a late period been restrained by usury laws of European creation, the Code has followed the prevailing sentiments of the age, that a trade in money should be as much unshackled by any legislative interference as the trade in any other commodity; but the courts will not allow excessive interest, for under the old system the money lender used to credit every payment to interest, and year by year brought out the same, or an increasing, balance, while the unfortunate debtor, like the daughters of Danaus, found himself continually filling with water a bottomless vessel. The law of libel is based upon the most novel and liberal legislation of Eu-

rope, but in a country where the tongue is quite unbridled, where men have no more sense of honour, and are as little restrained in what they say as women, the law is inoperative: the most scandalous and unfounded assertions are listened to, and apparently not resented. Side by side with such provisions as these, savouring of the most advanced stage of society, and next in order in the Code to the law of Insurance, and the law of Copyright, by which the efforts of the brain, and the results of learning are condensed into a possession and formed into a property, we come to two rights, the most ancient in the Asiatic system, and which flourished, and in some cases perished, before the existence of European society. In the dawn of civilization the priest was the lawgiver, and it is not likely that he would forget to provide for his own class, and the fees and offerings, now sanctioned by the Code are of the same family as those which were instituted by Moses in the deserts of Arabia. No sooner had mankind ceased to be migratory, and begun to dwell in cities, than some fervent or ill regulated spirits were urged by some hidden fire to abandon the haunts of man, the honest modes of living, and the domestic law of nature: thus was founded the Hermitage, which eventually expanded into the Monastic Institution; the relation of disciple to spiritual teacher, the spurious imitation of the natural relation of son to father, prevails extensively in both the indigenous religions of India, and that relation can be traced back to the time when Elijah left his cloak to Elisha. Nor has the Code forgotten to include primeval caste, and, though excommunication for ceremonial defilement could not be legally recognized, the existence of the institution is recognized by securing a remedy to the party injured against the party who has injured him.

The Rulers of the Punjaub, by departing from the cold and philosophic convenience of absolute neutrality, have here involved themselves in obvious inconsistencies. By a late Circular we find the Missionaries authorized to encourage their converts to qualify themselves for small posts in Government employ, as if sincere men would be tempted by the badge of a messenger, and forgetting that in the real days of conversion the early Christians looked forward to no prospect of provision in the Court of the Prætor. At this part of the Code we find the judicial officers taking sweet council with a band of half naked, or fantastically clad Byragees, as to the appointment of a spiritual leader, discussing with grave earnestness, whether the deceased idolater had a right to marry, or not, and whether the precious blessing of the burnt Gooroo had fallen on this hypocrite, or that. Such are the grave inconsistencies into

which all must fall, who swerve from the great principle of absolute neutrality of the Civil Government from *all* Religions.*

Why should not the religious affairs of the heathen be treated by our Courts in the same cold contempt, that the Romans adopted towards the disputes of the early Christians? They are but questions of names, and of their law, and the servants of a Christian Government should not be judges of such matters: let us drive them from the judgment seat, and Gallo-like take no care for such things. Who settles the affairs of the Jewish synagogues or Jewish institutions in Europe, or of the numberless Christian communities in Turkey, for the latter in civil matters would never have recourse to a Mahomedan tribunal, and indeed Christians are specially forbidden to do so. The laws should not recognize the corporate existence of institutions which it did not itself create: pleas should not be permitted which are contrary to the conscience of the judge and the judicature. The existing Municipal law, as regards marriage, inheritance, and civil rights, is unobjectionable, but our line should be drawn there. Temples, Shrines, and Conventual Establishments should be considered in the light of buildings of an ordinary nature. None of the Governments preceding us recognized the existence of hostile religions, but they left such matters to be settled by the people themselves: but such is the liberality of modern times, that the erection of a Mosque or a temple, used a few years back to be chronicled as a work of public utility, and public officers were found gradually to Hindooize, for while one officer subscribed in a public-spirited way to the erection of a temple of Siva near his own office, another was not deterred from recommending to a Christian Government to endow another temple with a grant of land in perpetuity.

We are deliberately opposed to the aggressive policy of that great party, which strives to bring the children of the Heathen under their influence in the guise of education,* but we are at the same time the staunch advocates of the entire dissociation of our executive, or Judicial, Courts from ought that is connected with the religion of the Heathen. It is admitted that there exists a conscience in our laws, and that they refuse to notice certain contracts as contrary to public policy and morals, yet not only have we endowed communities of Saanyasees, Oudasees, Yogees, Nanukputees, Byragees, Nirmulas, Nagas, and other euphonious bodies of very disgusting individuals with large grants of lands, but their status is recognized, the inheritance of the spiritual teacher is conveyed to the disciple, and the strong arm of the Courts is found supporting them. The Code recog-

* Our contributors are alone responsible for their opinions.—*Ed C R*

nizes also the office of the Purohit or family Priest, and the Guardian of the Mosque, or Shrine of a Mahomedan Saint. These gentry are always talking of feeding the poor, as did the monks of the mediæval period, but in fact they are lazy drones, and, if report is true, lead loose lives. Some marry, some practice celibacy; if wealthy they are quarrelsome, proud, and grasping. We found the Punjaub eaten up with the devotees of the Sikh persuasion, and we have secured their ample Revenues. No doubt, when the Sikh power rose, all the ruined Mosques and Tombs of the Mahomedans were flourishing and richly endowed: the Sikhs were wise enough in their generation to sweep them all away, and when the long steps of Benares and the gorgeous tank of Amritsur are falling to ruin, when people no longer visit shrines on account of the bad repute of the manager, when the priesthood lose their hold on their people, there will be the dawn of a new religion; but not while, as is provided by the Code, a man entering a religious order forfeits his property, while Christian Judges are called upon to decide upon points of ceremonial of entering Hindoo Monastic institutions, and while the corporate existence of those bodies is recognized.

It must not be supposed that the practice of the courts in which this code is enforced, has approached in any degree to perfection: they are confessedly rough institutions, have as yet scarcely taken root, are lax, irregular, and just what may be expected of the conglomerate of which the judicial body has been formed—young civilians, gallant Captains of Infantry, country-born and half caste Britons, Persians, Armenians, Sikhs, Mahomedans, Cashmeerees, Bengalee Baboos, Punjabees, Hindustanees, a motley crew, who, according to the exigencies of the local Government, are always changing. Still progress is being made, and progress makes perfect.

Rapid are the decisions—sometimes too rapid, but the good easy man, who has got his decree, must not suppose that he has got to the end of his journey: wilds immeasurable spread, and mountains upon mountains appear to start up: the bane of the Punjaub system is the license of appeal, which is unlimited, and the extraordinary fact, that many of the Appellate Courts are in the hills far removed from the cities and villages where dwell the unhappy litigants. However, spurred by pique, and a spirit of rivalry, and a passion for the fight, the defeated litigant hopes to catch his antagonist in a net of appeals, remands, and modifications: he knows that by a voyage to the cold regions at certain seasons he runs a chance of fever, ague, or cholera, but the spirit of litigation is like a taste for gambling, and, when it has once seized its victim, it does not leave him until exhausted and ruined. Should however the decree-holder turn the corner

of appeal, a new arena is entered, for the defeated party tries by claims and counter-claims to defeat the execution: cases of objection spring up hydra-headed, and nothing but a keen sense of the spirit of the game, like a fox hunter, would carry him through the toil, the weary delay, the daily disappointment; and sometimes when he has his enemy fairly in his power, and is preparing to devour him, the vermin dodges, and wrings from a soft-hearted Judge an order to pay by instalments.

The contemplation of a machine formed for the express purpose of ruling men, controlling their bad passions, and defining their rights, such a machine as a civil code, is always interesting, more especially among such a people as the people of India. It is dangerous to legislate beyond the requirements or against the public feeling of a people, for, if you do so, your laws will either be oppressive or a nullity. And it is a striking reflection, that so many can live together, and yet differ so widely. In your village wanderings you are conducted to their boundaries by the head-men and notables, with whom you have been discoursing, and you are welcomed by another set who use different phrases of salutation, call ordinary things by different names, believe different dogmas, name their children on a different principle, have different notions of right and wrong, and invoke different Deities: but all are equally devoid of the Spirit, and utterly without God in the world.

Some burn their dead. others bury; the Hindoo will go out of his way to burn a dead Hindu stranger, the great horror of a Mahomedan is to be burnt. The Hindoo would not marry a member of the same tribe as himself, considering it incest: the Mahomedans habitually marry first cousins; their law of inheritance proceeds on entirely different principles, yet there is no sting, no recrimination, but friendly intercourse, and a courteous avoidance of certain subjects, and neither can cry back to the abstract rights of man, for both religions appeal to a Code, one made many thousand years ago for another state of society, the other made thousands of miles off for a very different kind of people.

Still in the Punjaub in outward matters the process of assimilation was going on. The Hindus might be taunted as being half-Mahomedans, as the Affghans taunt the Mahomedans with being half-Hindus; their dress, and trimming of the beard are so similar, that all distinction of outward appearance has perished. The Hindus entrusted all their children to Mahomedan teachers, and their infants habitually to Mahomedan wet-nurses, which, considering their extreme particularity about cooking and eating among adults, is a singular phenomenon of the Mahomedan character, and forms of writing had been adopted, and phrases used

in correspondence, which sound ridiculous from a party who did not believe in Mahomet. The offspring of Mahomedan concubines were sometimes Hindooized by their parents, and some of the Punjaub nobles are so situated. In fact the grand idea of the founder of the Sikh religion was being gradually worked out, a progress was being made towards the destruction of caste certainly, and the probable blending of religions, when the passage of the Christians across the Sutlej rolled the tide back. We have given a new life to Hindooism in its most ultra development: the Sikhs are gradually falling back into orthodox Hindooism, and all the irregularities, sanctioned by Royal lust, or, the license of powerful Chiefs, and the general independence of Sectarians, are now checked. It has been our unhappy privilege to give a new lease to customs which were wearing out, and by the presence of our army of pure Hindoos, and our numerous followers, to recrystallize into a compact form the fabric of ceremonial rites, and spiritual dogmas, which had been gradually melting away.

For the Punjaub and its dependencies, the Code, which we have now reviewed, is a great fact, pregnant of promise, enlightenment, and order. Whoever wrote the Code, be he old or young, deserves the thanks of the Government and the people, for already fifteen millions of men submit to it, and it combines a wise tenderness for the common law of the people with a resolute opposition to antiquated, unjust, and time-dishonoured prejudices. When the Governor General in Council declined to give this Code the sanction of law, there were fortunately found men in the Punjaub ready to give it a trial, and the names of Sir John Lawrence and Mr. Montgomery must be inseparably connected with it, for we know from the bitter experience of the Criminal Code drawn up by Mr. Macaulay, that the best of Codes are useless, if there is a deficiency of nerve and force of character in the rulers, to take the responsibility of promulgating them. In the Punjaub a Justinian and Napoleon were not found wanting. Since then we understand that the Code has been introduced into the Kingdom of Oudh.

This is a warning to the Rulers of those great provinces that lie on either side of the stream of the Northern Ganges, who still, in spite of experience and failure, cling to the yoke of the Regulations. A year has elapsed since they were urged and implored to cut boldly and be free:—to this they were unequal, and they still plunge on in the Slough of Despond. Many an action of our European officers, many a proceeding of our Civil Courts, have in times past come under our observation, which were calculated to rouse a people, who had any spark of spirit, into righteous indignation: but they bore it in silence; their

cup was not full, and they bided their time, till at length a Mutiny of our Prætorians gave room for an expression of the feelings of the mass, which had been pent up too long. It was then that the deep-rooted national dissatisfaction of half a century, the sullen rancour of a crushed Aristocracy, mindful of the state of their ancestors but conscious of their own degeneracy,—the furious hate of despoiled priesthoods—the imprescriptible rights of dethroned and dishonoured dynasties,—the honourable importunities of wounded self-respect and hopeless ambition—the plaintive lamentations of ousted landlords and the ceaseless recriminations of ruined families—the scoundrelism of large cities and the scum of military bazaars—all these collected in one black cloud, and overshadowed the North-West Provinces. On us, and our children, fell the accumulated vengeance for the misdeeds of our forefathers: the people hated us with a hate exceeding the hate which they bore to each other, they abominated our religion as evidenced by our outward customs, and they writhed under our pride.

But it is past. Every nerve has been strained, and every pulse agitated: the storm is blown over, and left us materially more powerful than before:—the strong man is himself again, and cries Ha Ha!, for he has seen the struggle, tried his strength, and knows that his countrymen, if true to themselves, can still conquer and rule millions. But, in the hour of victory let us think of justice, and if we wish to govern the country, *we must learn much and forget much*, and bear in mind that no slavery is so wretched, as that where the law is capricious and uncertain.

ART. II.—1. *Correspondence relating to the Establishment of an Oriental College, London. Reprinted from the "Times" with Notes.* London: Williams and Norgate. 1858.

2. *Statement on the formation of a Christian Vernacular Education Society for India.* 1858.

THE Court of Directors, with all its defects—a bulwark against hasty measures, has been abolished after a long and not inglorious career, and the Crown is now supreme in India, but the Court may leave as a legacy to their successors those memorable words of Macaulay delivered in the House of Commons. "I believe most firmly, and I believe that no person who is acquainted with India will dispute what I am about to say, that at least there are ten gentlemen in this Court (of Directors) the least informed of whom is better acquainted with and is better informed on India, than the whole of the Treasury Bench opposite. That this House can be any *efficient* check on the royal prerogative in India, I altogether deny, what we want is a body *independent of the Crown* and no more than independent, which shall be neither the *tool of the Ministry* nor the tool of the opposition."

The danger of India therefore is this—that after a few years with an apathetic House of Commons, important Indian questions may be decided really by Anglo-Indian and London Journalists, ignorant of the *real condition of the Indian people*, or they may be carried by popular agitators who get up a cry for party or personal purposes. We should remember the history of the first French revolution when it was very easy to pull down, but to build up was never done, when Editors and theorists like the Abbé Siéyes made paper constitutions *ad libitum*. Some both in India and England, forgetful of the maxim "the more haste the worse speed"—that long rooted associations are not easily eradicated, that whatever is to be permanent must be the growth of time, would have India managed at the mere dictum of a Secretary of State in England.

It is therefore is a question of supreme importance now—how is India to be *permanently* pacified, and its people led to co-operate with England in the great work of civilising and Christianising the Hindu race. How are Englishmen to fulfil their high mission in Southern Asia, ever bearing in mind the words of Sir C. Woodmanfully stated before the House of Commons "the desire to throw off a foreign yoke is implanted in the human breast." The problem is, as Lord John Russell put it, "how to reconcile our duties as Christians in India with the most entire religious liberty, and a *benevolent* rule with the

‘firm assertion of power.’ How is the Oriental to live in concord with the Anglo-Saxon, how are the minds of Indians and Englishmen, though playing on different keys, to be brought into harmony?

How are we to conquer the *mind* of India? As a partial solution of this question we intend to advocate in this article two projects recently proposed in England for India, viz. a *Christian Vernacular Education Society*, which would bring the masses of India nearer to the English by giving them Christian and English knowledge through the Indian languages—and an *Oriental College*, which would bring the European mind nearer to the Oriental, enabling the European to do the Oriental good, and to influence him in a way agreeable to Eastern taste. As an exposition of these views we quote an extract from an admirable article in the *Journal des Débats*, which with French acuteness gives a common sense view of this subject:—

“Orientalism, represented by Mahomedans, detests Christians, and particularly Europeans. The struggle between the East and the West is not approaching its term; and although in this ancient war the greatest victories, and apparently the most decided ones, have been achieved by Europe, the East, which sometimes appears vanquished and subjected, ever recommences the struggle, and casts off the yoke of the West, at the moment when it seems to have accepted it with slavish submission. Europe, therefore, never can hope to overcome its enemy. *In the East, Orientalism is invincible. Europeans in America exterminated the native race; in the East this could not be done.* The old world will not allow itself to be exterminated, even if we wished to have recourse to that fearful system. What is to be done? Are we for ever to have war, and never to meet with peace and conciliation? This would be an odious prospect. Happily Orientalism, which cannot be destroyed, is not alone represented in the East by the Koran and its followers; there also exists a *Christian Orientalism*, and the genius of Christianity represents peace and conciliation between the East and the West. Eastern Christians are the necessary agents between Europe and Asia. They do not entertain the Mussulman's fanatical hatred of the West, for they have not the European's disdain for the East; they are connected with the *Western world by faith and ideas, and with the Eastern world by habits and customs.* We must encourage the development of these mediating races, instead of obstructing them. Europe must be persuaded that *Christian Orientalism can alone solve the Eastern question.*”

But a preliminary objection is raised to this, that if English be made the *universal* language of India there is no need of communicating knowledge through the vernaculars or of requiring Europeans to qualify in the Oriental languages. The *beau idéal* of a universal language as of a universal law for India or even for the world is, we freely admit, a beautiful theory. We hold in this with old Bishop Wilkins as to the value not only of a universal character but of a universal language—but *experientia docet*, and we have seen in North India

the thorough failure of the plan for Romanising *i. e.* writing in English letters all native words, though good in theory. We have seen enough of the natives to feel that theories for them may be as water on a lotus leaf; it falls but enters not. It is the same in Europe; just cross the channel from Dover to Calais, 21 miles—ask how many Frenchmen prefer English law to the Code Napoleon, English manners and the English language to the French, and then talk of uniformity of law and language for a country like India, having as many distinct peoples and languages as Europe.

We therefore come to the same conclusion as Dr. Donaldson did when, after examining the claims of the Latin to be a universal language, he draws this inference. "It seems now to be determined that neither Cæsar nor Napoleon was destined to reverse the decrees of providence, that man, though the one reasoning and speaking creature, should in different parts of the world express his thoughts in different languages." Independently of the impracticability, from expense and the *vis inertiae* of the masses, of making English the universal language in India, there is one insuperable obstacle. The English language is not a suitable medium for conveying oriental thoughts, it is too cold, too frigid a language for the glowing East. How could that immense armoury of oriental proverbs so suited to paint native ideas be embodied in English with their innumerable associations from localities and family history, and how could all these references to history and climate be embodied? While some hold the view that English writings alone are the standard of correct taste, there is one book designed for universal use which has not one particle of Anglo-Saxonism in it—the Bible. On the contrary, its truths are invariably clad in the glowing and brilliant imagery of the East, and hence the "children of the sun" are far better judges of its style than the sons of "foggy England." How very few in England can enter into the spirit of Solomon's Song and its exquisite mystic allegories, yet for ages in Hindustan and on the plains of Persia a similar mode of illustrating spiritual truth has been followed.

One of the greatest dangers therefore for the future of India is, that we may have a large class of Europeans coming out to it who, from contempt for the native languages and through the love of ease, will not come into direct contact with the people, but leave everything to the *interpreter*. Some hold the theory that the European can gain influence over the natives in rural districts without studying the native languages, by communicating with the people through "the painted glass of interpreters." The opinion of Sir C. Trevelyan on this subject admirably expresses the views of all men of experience in India:—

"I know from my Indian experience that a knowledge of the native languages is an indispensable preliminary to understanding and taking an in-

terest in native races, as well as to acquiring their good-will and gaining influence over them. Without it officers charged with important public affairs, feeling themselves at the mercy of a class of interpreters whose moral character is of a very questionable kind, live in a state of chronic irritation with the natives, which is extremely adverse both to the satisfactory transaction of business, and to the still more important object of giving to the people of the country a just impression of the character and intentions of our nation."

"It should not be left, as it is at present, to the discretion of a young man, whether he will pass in the native languages or not. The power of understanding his men, and of rendering himself intelligible, should be considered an indispensable qualification, and those who cannot or will not acquire this necessary accomplishment should be removed from the service. The office of regimental interpreter and the practice of interpreting at courts-martial, should be abolished. Every officer should be presumed to understand the language of his soldiers."

Sir G. Grey, when he was appointed Governor of New Zealand, made the following remarks soon after his arrival there. "I soon perceived that I could neither successfully govern nor hope to conciliate a numerous and turbulent people with whose language, manners, customs, religion and mode of thought, I was quite unacquainted." He resorted to an interpreter, but remarks "I found that any tale of sorrow or suffering passing through the medium of an interpreter fell much more coldly on my ear than it would have done had the person interested addressed the tale direct to myself, and in like manner an answer delivered through the intervention of a third person appeared to leave a very different impression upon the suitor from what it would have had coming direct from the lips of the Governor of the country. Moreover this mode of communication through a third person was cumbrous and slow, that in order to compensate for the loss of time thus occasioned it became necessary for the interpreters to *compress the substance* of representations made to me, also of my replies, into the fewest words possible: and as this had in each instance to be done hurriedly and at the moment, there was reason to fear that much that was material to enable me fully to understand the question before me, or the suitor to comprehend my reply, might be unintentionally omitted. Lastly, I had on several occasions reason to believe that a native hesitated to state facts or to express feelings and wishes to an interpreter, which he would most gladly have done to the Governor, could he have addressed him direct."

Late events have led several to hold the view that we ought to discountenance the vernaculars, because the mutineers opposed those who knew English, as they rooted up English trees at Lucknow. But would a man from that circumstance be wise in forcing the oak in India (which can never be naturalised on the plains,) or in forcing a beefsteak down a Brahman's throat? A Madras writer in reply to this argument says, "as

'well may the Government urge the eating of beef and the wearing of hats, because all beef-eaters and topiwallahs were singled out for vengeance by the infuriated sepoys." We thought that such a proceeding would have been a strong argument in favor of giving English *knowledge* through the vernaculars, which would serve as a medium, as certain syrups are used to induce children to swallow nauseous medicines. The Celtic Irish hated the Protestant Bible in English and would not receive it—but they welcomed the same book when given to them in their vernacular. Vernacularise your knowledge, and it is no longer an exotic plant, dependent on man and chance.

Those Englishmen in India who think the extirpation of the 15 vernaculars spoken by 200,000,000 of Orientals in India (one-fifth the human race) is easy for a body of foreign conquerors alien in blood, religion and race, who can never colonise the plains, we would refer to the failure in forcing the English language on Ireland and Wales, and to the Moslems who had possession of Bengal for five centuries and could not succeed in the same object. The case of the Welsh is an unanswerable argument to those who fancy a mere *hukum* is sufficient to extinguish a people's language. Wales is on the borders of England, it contains a population of only 1,000,000. Ever since the days of Edward the First the English Government has sought by every means to extirpate the Welsh language. In Elizabeth's days they burnt the Bible because it was in Welsh, and no employment was given without a knowledge of English in all Government Schools. Education was in English, the Church Establishment—all the Bishops and chief Clergy, knew no Welsh. Was the language extirpated? No! so far from this, the Welsh are publishing an Encyclopædia in it now on the plan of the Penny Cyclopædia, they have translated the works of more than 600 English Theological writers, they have a *Quarterly Review*, 15 *Monthly Magazines* with a circulation of upwards of 60,000, and a weekly newspaper.*

We have always held that the English language as the medium for natives of *leisure* and *ability* acquiring a large stock of European ideas, is an instrument of great value, and we must cordially hail the founding of the Indian Universities as a most important step. But of late we have been astounded with the cry that the vernaculars should not be cultivated; and that

* A million of people only—on the frontier of England—with an English Government which for five centuries made it a fundamental part of their policy to extirpate their language, and a wealthy Church establishment chiefly of Englishmen through laziness or apathy co-operating in those views—yet what has been the result. We bid Indian Vernacular Book Societies take a lesson from it. The Welsh have published in their mother tongue within this half century six hundred translations, Commentaries on the whole Bible, and several on separate parts of it.

all knowledge human and divine should be communicated only through the difficult and costly medium of English, to one-fifth of the human race. It is forty years since the Serampore Missionaries conveyed their views on this subject in the following strain :—

“ For ideas to be acquired with effect in a foreign language, opportunity, leisure, inclination, and ability must combine in the case of every individual ; and even then scarcely one in ten would so thoroughly acquire the English language as to derive due instruction from the mass of knowledge contained therein. These advantages too must be renewed to every successive generation, and the same advantages of opportunity, inclination, and sufficient ability must unite in the case of each individual. Moreover instruction, to answer its proper design, should be such as to render the inhabitants of a country happy in their own sphere, but never to take them out of it. Those individuals, however, in whom such ability for acquiring the English language united with due opportunity of improvement, would scarcely remain to till the ground, or to labor at any manual occupation ; they would therefore by their education be unfitted for the ordinary callings of life. On the other hand, the successful exertions of one European in acquiring the languages of the country, or of a native in acquiring the English language, might, through the medium of the native languages, not only diffuse light throughout a whole country, (and at one-tenth of the expense,) but enlighten successive generations to the end of time : while knowledge thus imbibed by the common people would serve to expand their minds and enrich their language, and at the same time render them happy in the humble sphere wherein providence has placed them.”

It is very easy for theorists who have never *mixed with the people* to propose such a scheme and build castles in the air—but will the natives of India consent to be thus denationalised and laid prostrate at the feet of foreign conquerors? The remark of Sir T. Munro, is very applicable here. “ In recommending new systems for India people are too apt to think ‘ that mankind are a mere piece of machinery, on which it is perfectly harmless to make experiments every day.’ ” It is a fact that the vernaculars of India have advanced and are advancing *puri passu* with the study of English.

As embodying what we believe to be the views even of educated Bengalees, who have heretofore been such slavish imitators of the English, we quote the remarks of a Native Clergyman, the Rev. Lal Behari De, on this subject :—

“ The vernacular language of a country is the guardian of its improvement, and the foster parent of its genius. It is embalmed in a thousand recollections ; it produces on the mind the most lasting impressions ; it is the readiest instrument of communication. To eradicate, therefore, the vernacular language, of a country, is an attempt as unwise as it is hopeless. History, which is the record of experience, teaches us that all attempts to supplant the native tongue of a country have hitherto met with signal failure. The hardy Roman, whose strong hand shook empires to their centre, and who gave laws to nations, influenced their manners, modified their customs, and regulated their religion, was unable to change their lan-

guage. The fanatic Moslem, who converted kingdoms at the point of the sword, was, it is well known, baffled in his attempt to supersede the native dialects of India. Not to multiply instances in modern times, Frederick the Great of Prussia tried every means to change the guttural German for the polished French, with what success the present advanced state of German literature abundantly testifies.

Confining our attention to Bengal, common sense and history equally sustain us in maintaining, that it is impossible to make the thirty millions of Bengalees exchange their mother tongue for the Anglo-Saxon. Imagine a Bengali husbandman holding the plough, and pouring a volley of Anglo-Saxon curses upon his refractory and vicious ox ! Imagine Bengali mothers composing their babies to sleep to the tune of an English lullaby ! Imagine our *Matchooa Bazar* fisherwomen praising up their fish, abusing their customers, and pursuing their noisy vocation in the language and style of Billingsgate ! • Imagine our streets filled with London cries, our potato-sellers, our milk-men, our cloth-men, our sweetmeat sellers, and our *guler-julpanwallahs*, all crying up their goods in the approved fashion and accents of London criers ! But enough ; the idea is ridiculous in the extreme, and deserves a conspicuous place in the Republic of Plato and the Utopia of Sir Thomas More.

But were it practicable, it is not at all necessary, to supplant the Bengali by the English language. Our native tongue is admirably qualified to serve all our purposes. From its close affinity to the Sanskrit, the most polished and copious, perhaps, of all the languages of the earth, it is capable of indefinite improvement. The Sanskrit is, pre-eminently, the language of poetry, philosophy, and eloquence. There is no modification of thought however deep, no sentiment however refined, which may not find adequate expression in the vocables of the " language of the gods." • With so copious and unfailing a source to draw from, the Bengali language has nothing to fear. In the day of need it will be found nobly maintaining its ground ; serving all the purposes of science, poetry, philosophy, history, and theology ; and contributing to the improvement and amusement of the thirty millions of Bengal. Already is the Bengali language doing honourable service. It is the language of our Courts, civil, fiscal, and criminal ; and the language of theologic instruction. In the hands of a *Bharat Chandra* it has become the language of exquisite poetry ; in those of a *Mritunjya*, of rich parabolic and ethical instruction ; while in the elegant and graceful form which it has assumed in the hands of *Iswar Bidysagur* and *Akhayakumar Datta*, it is admirably fitted for the purposes of history and science. And we have no doubt that it will go on increasing in copiousness, elegance, force, and richness, till it becomes the patroness of improvement, and the guardian of all blessings."

He gives what we believe is the conclusion of the matter, " The English language may be learned by the upper ten thousand ; but for the millions constituting the base of the social pyramid, the Bengali must ever remain the only medium of acquiring knowledge, and so with the other great Indian vernaculars."

The vernacular Press may be taken as an index of native feeling. In 1818, the number of Bengali books annually printed for sale did not exceed 20,000 in Bengal—then came the wish for English, and the neglect on the part of Government and of natives, for a time, of the vernacular. Yet what do we find in the year 1857, with not 3 per cent. of the rural population able to

read—that there were printed for sale, of books and pamphlets in Bengali, more than 561,000 in Calcutta. Men will not purchase books if they do not want them.

Strangers in India, hearing Natives in offices speaking in English, fancy that the ability to read and understand English literature follows—but a knowledge of a language colloquially and as an instrument of thought is very different. Numbers in India study English to qualify themselves as writers in offices or as official machines. This is a very mechanical work, requiring only a limited knowledge of English, a mere whitewashing. While Napoleon regarded education as of value chiefly for making soldiers, our modern English education in India has been chiefly used for making keranis or quill drivers. How many of the waiters at Hotels on the Continent of Europe can speak English fluently as far as their business requires, but they know no more; similarly many native servants at Madras speak English to their masters, but are utterly unable to read a book in English. A number of English also can speak Hindustani, how few can read the literary works in the vernaculars; natives will often repeat a passage in English with a perfect pronunciation yet not understand a word of it.

The great object with which the majority of natives study English is as a stepping stone to employment, but the supply in Bengal is rapidly exceeding the demand. Are we then to have what is now the case in Greece, “young men who would have been prosperous farmers or thriving artisans, if they had been contented with the position in which they were born, crowding the public offices and seeking for employment; they gain the situations by money and compensate themselves afterwards by bribery:” so even now many an English educated native cannot dig, though to beg he is not ashamed. What will be the state of the country when a number of these writers are thrown on the world, with artificial wants created but with no means of satisfying them? With the demand for native writers of English in Government and mercantile offices the study of English is on the increase, and therefore in this direction English will spread, but it will be, as now, to a great extent a surface knowledge, and even when more, it is not the language of domestic life and of the native social circle. Well-educated Englishmen speak French, so do Russians, but it is not the language of the family circle. We have never visited one of these schools for learning kerani English but we felt the truth of the description of them as given by H. C. Tucker. “The mere smattering of English by the majority of boys, without any increase of ideas, appears to me worse than useless, 1st, in wasting time which might have been far better spent in acquiring ideas; 2nd, in promoting conceit and vanity

in such smatterers; 3rd, in giving their parents and others a very low opinion of the results of English education."

We are glad to see those views confirmed by the Calcutta Missionary Conference, who have published a Report called "The Educational Destitution in Bengal and Behar, and the London Christian Vernacular Society for India." The Paper was drawn up by Dr. Duff, and met the unanimous approval of the Calcutta Missionaries. Similarly the Conference of Missionaries at Benares in 1857, resolved that even in cases when Catechists received a knowledge of English, all these branches of knowledge in which they will have to instruct others should be communicated to them through the vernacular, with the view of making them familiar with the terms they will have to employ, with native modes of thought, native illustrations, native objections, and with that native literature the doctrines of which they will have constantly to explode and refute.

While those who have received a thorough education through English can avail themselves with so much advantage of its scientific treasures, it will be a sheer impossibility for the numbers of youths who spend a few years at an Anglo-Vernacular school to qualify themselves as office machines, to gain a knowledge of popular science through English, inasmuch as the technical phraseology is all derived from Latin and Greek and is not of home growth like the German. We have before us now, as an example, an elementary work for English schools on Plants, but how thorny the path—a youth is not able to approach the portals of a simple knowledge of plants except by mastering full 500 such terms as *cotyledon*, *albumen*, *exogen*, *peduncle*. Scientific men who wish to domesticate knowledge protest against those terms, but we fear the genius of the English language has irrevocably fixed them, while the Indian languages can with the greatest ease construct terms intelligible to all with very little study. The mutiny has called forth with numerous Christians in England the desire to have a "glorious revenge," by pouring on the masses of India the light of divine truth through the medium of a Christian Vernacular education; and the determination that, as England has suffered so much from Sepoy ignorance and the prejudices of the untaught masses, so those masses shall be enlightened. Hence the origin of the "Christian Vernacular Education Society" for India. The primary object of this Society is thus stated. "To establish in India *Christian Vernacular Training Schools Male and Female*, and to supply as far as possible in each of the native languages of India, School Books and other educational works prepared on Christian principles. Each training institution to comprise a Vernacular Model School."

This Society has for its President the Earl of Shaftesbury and for its Secretary H. C. Tucker, Esq., of the Bengal Civil Service so well known for his active services of a quarter of a century in the cause of Christian Vernacular Education in India. In the list of subscribers we see the names of Maharaja Dulip Sing, Lord J. Russell and Sir C. Trevelyan.

It must be remembered that the fourteen leading Vernacular languages of India are not mere patois—they are of noble lineage, connected with three of the finest classes of languages in the globe—the Aryan, Semitic and Tartarian. The Bengali, Mahratta, Hindi, Guzerati are spoken by 80,000,000 of people, a number equal to the populations of England, Scotland, Ireland, France, Holland, Spain and Portugal. They are so closely allied as to be rather dialects of the one great Aryan language—the Sanskrit, which is itself affiliated to Latin, Greek, Russian and Gaelic. The leading vernaculars of India being so related, renders translation from one to the other very easy. The languages of South India belong to the Tartarian class which, as Caldwell in his “*Dravidian Grammar*” has shown, are closely related to the languages spoken in Siberia and Central Asia: on the other hand, the Indian Vernaculars of Persian origin are linked in their terminology and structure with the Arabic, one of the most ancient and noblest of primitive tongues.

The field of action before this Society is a very wide one, and very little cultivated. Out of a population of 180,000,000 in India, supposing that within the next half century 1,000,000 could gain a real knowledge of the English language, there would still remain 179,000,000 whose only means of acquiring any knowledge, human or divine, must be through the mother tongue, and among that number are more than 80,000,000 females, whose influence now is most powerfully antagonistic to the Christian instruction boys receive in mission schools.

The Christian Vernacular Education Society in their programme thus explain the grounds of their formation.

“The existing Missionary bodies cannot supply the education required; and it has been shewn that “as Missions expand, a less and less proportion of their means is given to schools for the heathen.” To furnish every sixty Indian children of school-going age with one Christian teacher, half a million of teachers would be required! All Europe could not supply such a body, to say nothing of the expense. We must therefore train natives to do this great work for their countrymen. This department of education is clearly the most important. The education given to the masses must be in their own vernaculars. The miracle of Pentecost indicated for ever the duty of the Christian Church to tell her blessed message to “every man in his own tongue wherein he was born.” In Wales the Reformation adopted the mother tongue; in Ireland it trusted to English; and what a lesson does the difference of the result teach!

Christian Vernacular Schools are necessary for the intelligent reading of

a Vernacular Bible. Bible circulation is most seriously obstructed by the inability of the masses to read, and their want of elementary knowledge. In India, as in Britain, the translation of the Bible may be "the first great work in popular and yet standard prose;" and we may yet, if only faithful to our privileges, by extending widely the power of reading the Bible with understanding, place in Christian hands the formation of the mind and the character of the rising generation. Most of the existing native literature is worthless and impure. It is the duty of Christian Britain to supply such a variety of good, interesting and very cheap Christian school-books and pure literature, as may gradually exclude the defiling native books, and works written upon the principle of ignoring Christianity, and saturate the whole primary education of India with a Christian leaven. Such books will also permeate among the *females*, and gradually, especially when assisted by the living *voice* of teachers trained in Christian Normal Schools, give a Christian tone to the indigenous education of the country."

It is very much to be regretted that when the Bible Society began its career in India, a Society like the one above-mentioned was not begun at the same time. It would have rendered the millions of Scriptures that have been distributed of far more use, instead of their having been in many cases of as little value to their possessor, as would be, according to the Bengali proverb, "a gun on the shoulder of a man who knew not how to fire." In Bengal not two per cent. of the rural population can read intelligently, and yet more than 2,000,000 copies of portions or the entire of the Bengali Bible, have been distributed. Good men calculated the area of distribution, not by the number of readers but by the number of heads. We may mention one case as an illustration which occurred lately. A bigoted Brahman confessed to having an enormous quantity of Bengali Tracts and Scriptures in his godown—he stated as his reason that he collected all he could to prevent their doing mischief! There are many like him. We fear that few in Great Britain realise the dense intellectual darkness that broods over the rural population of India. How strange on this point was a statement of Dr. Candlish made at a meeting of the Indian Christian Association in Edinburgh, November 1857;—"the faculty of reading is becoming all but universal among the population of India." Not more than 2 per cent. of the rural population are able to read intelligently.

What is the state of things in India calling for this Society. The painful truth comes out that the moral and mental education of the masses through India is little better now than it was 500 years ago. We have not even tapped them. Our work has been too much on the surface. We have had an increase of English education—a valuable thing, but as to the mind of the masses, we challenge any one to deny that what was said 30 years ago by Messrs. Carey, Ward and Marshman

is not applicable to a great extent still, except in a few mission stations :—

“ The wretched schools they have in their towns and villages are so few, that on the average scarcely one man in a hundred will be found, who can read a common letter. But the knowledge gained in these schools is so small, that it does little more than serve to make darkness visible. They merely learn to trace the letters of the Alphabet, to write a few names; and, as their highest accomplishment, to copy a meagre and ill-written letter. Hence, when brought into life, numberless instances occur, wherein their wretched writing and far more wretched orthography, almost the dictate of every man's fancy, render them quite unable to read each other's hands. Hence, too, the perusal of books, from which principles of integrity and uprightness might be imbibed, is quite out of the question. If there be any thing in Menu, or in any other of their writers, which could preserve the tone of public morals, it is never brought within the reach of the common people. Printed books they have none. And as to manuscripts, they have scarcely one manuscript in *prose* ; but, if they possessed a multitude, their ignorance of their own language would render the perusal of an inaccurate and ill-written manuscript too formidable a task to be often attempted. Thus, with a regular and copious language of their own, nearly all who are ignorant of the Sanskrit language (which is not understood by one in ten thousand throughout India) are in a state of ignorance, not greatly exceeded by that of these savage hordes who have no written language.”

In Bengal the Government spend less than the salary of a single Judge, in Grants-in-Aid to Vernacular Schools for 35,000,000. And yet with this state of things we are told we ought to have no Vernacular Education for India, but imitate the Romans who imposed their language on the conquered. The Romans disregarded the enlightenment of the masses, as did even the philosophers of antiquity ; it was Christianity which cried out for knowledge for all ; the Roman language was confined to large cities chiefly—the Vernaculars there were more patois. Among the German nations, the Romans did not succeed, much less could they have done so with oriental nations ; and with the Greeks so far from introducing their language, Greek gained the ascendancy even in Rome in the days of Cicero.

However beneficial, in a pecuniary and mental point of view to themselves, may be the high education given in English to the class called Young Bengal, it has had little effect in leavening the masses. The highly educated talk and write essays, but what will they do ? What is done by them up to the present moment in female education, in giving a high tone to the native periodical press, in establishing schools for the peasantry ? They can read one of Sterne's Novels and weep over a dead ass, but the ryot at their very doors may be tortured and trampled upon, and they will not lift a little finger to relieve him.

Lord Ellenborough in his recent minute advocates educating only the upper classes, stating that knowledge will go down. We

say this has been tried in Bengal for 25 years, and it has not done so, nor does it show a tendency to do so, except in some special cases. The English-educated Zemindars are like the old Irish landless absentees, hovering about town where they can have "wine and women" ad libitum. Their education has taught them to hold the ryots in contempt. It is to the influence of Christian men who believe that Christ made an atonement for the peasant as well as for the peer, that we must look to give an impulse in favor of educating the masses, who are dumb and cannot plead their own cause.

Natives educated solely through English to the neglect of their vernacular, become incapable of exercising any proper influence on the masses, or of communicating knowledge in a pleasant and popular mode to them. A smattering of English may be acquired by a considerable number about one town, or in immediate communication with the few English residing in India; but the people (the women as well as the men) will, as a whole, only think and speak and read in their native tongue, and their general enlightenment or education can only be attained through this channel. A wide basis, therefore, of a solid though limited education, through the means of the vernacular languages, must be given to those classes which now receive education, before anything permanent will be effected. It is upon this broad basis alone, that the superstructure of a high standard and refined education can be raised, and the superior acquirements of the few very highly educated be made to tell upon and influence society.

How is the mass, wholly unprepared by even an elementary education in western learning, to understand and appreciate the acquirements of the highly educated man, or how is he to communicate his high attainments in science and literature to them, and what possible influence can be therefore exercise over them? In Europe, the bulk of the population who receive an education have ordinarily some elementary instruction in the higher sciences. There is, in Europe, a connecting link, running through all society, which conveys the highest truths of science in an elementary form to all grades, and the acquisitions of the most advanced minds can be, and are, appreciated by those immediately below them, and through them they filter down to the lower grades, who are prepared in their measure by elementary instruction to receive them.

But what is the case in this country? High acquirements in science or literature will be appreciated and understood by none but the few who are highly educated. There is a broad and impassable line between them and all others. We cannot but think it almost certain, therefore, that the only result of a system which

educates a few highly and leaves the rest of the population without even elementary instruction, is to render all the superior acquirements of that few (made moreover at an enormous cost for the state) barren and fruitless as to any general influence upon Society. The youths or men so advanced will exist in a great measure only as a small isolated class, despising others and neither appreciated nor esteemed by their fellow countrymen.

It is by their vernaculars that the people can be taught either to make or understand translations from western literature, and it is through the vernaculars alone that there can be the slightest prospect of reaching the women of the country, for they must receive all the knowledge they have time and opportunity to acquire through their mother tongue. If they are neglected and they remain wholly uneducated, it may be safely predicted that India will continue as the rest of Asia in its semi-barbarous ignorance.

The elementary instruction proposed to be given by this Society may be despised by some as of little value. It is true that the whole is better than a part, but still the part is of relative value. We appeal to every man who believes the Bible is the charter of salvation—is it nothing to put the masses of 180,000,000 in the way of consulting that, of enabling them to read it intelligently—is it nothing to give them true ideas in history, geography, and the common objects of nature. Who can read Burns' "Cottar's Saturday Night," or the history of those peasants of the Alps, the Waldenses, and not feel that the ability to peruse the Bible alone in the mother tongue is an instrument of great power. Many of those Alpine pastors knew only the Scriptures, yet what mighty men they were.

We have in India more than 100,000 village teachers, who make the vernaculars the media for inculcating all sorts of superstition and obscenity—teaching their pupils to cheat and lie and practise cruelty. Is it of little value to try gradually to supplant such by men who will teach about God's word and God's works, and who will inculcate habits of order and discipline? Is it nothing to form a class of school books with pure morals in them, instead of such as the following sloke most popular in schools in Bengal? "Fresh meat, soft rice nicely prepared, cohabitation with young women, fresh clarified butter, warm milk, and tepid water, are the six things which are beneficial to life."

Legislators ought to co-operate with this Society. Much has been written on the oppression suffered by the ryots, and on torture so generally prevalent—but mere law by itself will not remove those evils. They can be removed only by enlightening the

masses. The slaveholders of America saw very clearly how opposed education was to slavery, when they made the teaching a slave to read and write a penal offence; we ourselves have heard from the lips of intelligent Zemindars that they did not wish their ryots to read, as then they would not obey all their commands. The late Lieutenant Governor of Bengal, in his celebrated Minute on the Police has given the result of his experience. "While the mass of the people remain in their present state of ignorance and debasement, all laws and all systems must be comparatively useless and vain. Above all things that can be done for this people, is their gradual intellectual and moral advancement through the slow but certain means of a widely spreading popular system of Vernacular Education." The mutiny has shewn how little effect the penalty of death, almost universally inflicted, has had on the mutineers. Jail experience has equally evinced how crime suffers little diminution from punishment. We must then go to the root of the evil—the state of the people's mind, for law has little effect without morals.

The opponents of caste ought to support this Society. We have had *satis superque* of caste in Education as well as in the Sepoy army. No Education is given at present in Calcutta to any except Brahmans or Khaistas. The ability to read the Bible is practically as much limited in Bengal to the twice born or Brahminical caste, as it was in the middle ages to the priesthood. We need a Wyclif in India who will raise his voice in favor of the people at large having the means of reading, so as to be enabled to peruse the Scriptures in their mother tongue. Lord Shaftesbury alluded to this caste feeling among even good men, when he said on a late occasion in the House of Lords. "The fuss made about a Brahman convert is about the same as about a Brahman recruit. We fear that as respects mission converts from the rural population, little care is taken to have them read the Scriptures intelligently: how much of the Scripture reading in church is to them a dumb show. If the system adopted in Norway were introduced into this country, it would soon produce a great desire to learn to read, viz., none can be married unless they can read and write. Even in Russia every soldier's son is required to learn to read and write. We need more of the spirit of Tyndale the reformer, who remarked;—"I perceived by experience that it is impossible to establish the lay people in any (Bible) truth, except the Scripture were plainly laid before their eyes, in their mother tongue." Alas there are few even of the Christians in India who, look at a degraded ryot in the spirit of those beautiful lines of Montgomery;—

“ See in his soul involved with thickest night,
 An emanation of eternal light,
 Ordained midst sinking worlds his dust to fire,
 And shine for ever when the stars expire.”

We want in India more of the spirit of Tyndale, who, when once provoked by the perverse ignorance of a rich ecclesiastic, in his neighbourhood, replied;—“ If God spare my life many years ‘ I will cause a plough-boy to know more of the Scriptures than ‘ you do.’ ” How different from Henry VIII. who restricted the reading of Scripture to any one below the rank of a gentleman. We would strongly recommend to this Vernacular Society to discard that principle which gags the mouth and freezes the pens of some of its advocates, when they feel that without Government aid the education of the masses in India is but a dream. They must now remain neutral, impressing on the Government authorities, their duty with regard to enlightening the masses, and why—because that, though nine-tenths of the members of this Society do hold the principle of state grants fully, yet, because there is an ultra section of the dissenters among their number, they must be silent. Why should a minority who give little aid to this Society either in money or influence completely shackle the great majority in their operations, and by preventing its Christian influence on Government, leave the education of the masses in India entirely in the hands of secularists.

With respect to Vernacular Schools, the Christian Vernacular Education Society might learn a useful lesson from the following rule, acted upon with the greatest success since 1823 by the Irish Society for promoting the education and instruction of the native Irish through the medium of their own language—“ A proper person was in the first instance employed to seek for individuals in a particular district, who were competent to teach the primer of the Irish language. They were to instruct their neighbours how and when they could, by night, at home or abroad, sitting under the haystack or upon the wild mountain side; they were furnished with elementary books and portions of Scriptures for the purpose; at the end of three or four months an inspection by the person who engaged them took place, and the teachers were paid a sum, usually one shilling per head, for each pupil passing the inspection,” then so much in proportion when they passed in a higher book and books in gradation, so that when the pupil read the Bible intelligently, the teacher had received altogether as head money about 10 shillings. This system, simple and cheap, has really worked wonders in the wild districts of Ireland. The ability to read caused the peasants to study the Irish Scriptures, and the simple plan of head money education is considered by the Bishop of Cashel to have laid the

foundation of those extensive religious movements which some years ago took place in the west of Ireland.

A field will be opened for this Society's influence and publications, even in the Vernacular Department of English Schools, hitherto not worked as its importance deserves. While in Missionary Reports bright prospects were held out of the good from the amount of scriptural instruction given in Anglo-Vernacular Missionary Schools, and surprise was expressed at the willingness of the Hindus to send their children, it has of late been ascertained that very little scriptural instruction was given to the lower classes of the school, for, independently of the paucity of trained Christian teachers, biblical instruction was postponed in many cases until the boys could receive it through English—but by the time they reached that stage of proficiency, the majority of them were taken away from those schools and were sent to non-christian schools.* The Christian Vernacular Education Society have it as part of their plan to encourage translations into the fourteen chief Vernaculars of India. The following minute of the Board of the Madras University, made in 1841, may be of use as a guide. "It is to be considered that the whole current of conversation and habits of life among the natives are so very different from those which characterise the education and progress in life of Europeans, that the commonest trains of thought and matters of the most familiar information to the latter, appear new and often inexplicable to the native student." Hence they recommended, rather than a translation, a free exposition, taking in a great measure the character of original composition. To this may be added the advice of Dr. Arnold, that in teaching history they should aim chiefly at the poetry of history illustrating the chief events pictorially.

Throughout India the translators of the Bible and of Christian books have employed indigenous theological terms, on the obvious principle of such being more intelligible and defining themselves. We would recommend the same course to the new Society, and strengthen our advice by quoting from Dr. Whewell in his work on the Philosophy of Science, that words borrowed from common language, and converted by scientific writers into technical terms, are understood after a very short explanation and retained in the memory without effort. They are intelligible much more clearly and vividly than those borrowed from any other source, and they are more manageable in the construction of sentences. In the descriptive language of

* Between the age of 6 and 10 a sound acquaintance with Biblical History can be given to Hindoo kids through their own language; beginning with Scripture pictures—the parables of Christ, and then the historical parts are usually taught. The pupils are required to refer to Scripture, and to reproduce the lesson on their slates.

Botany, for example, in an English work, the terms drooping, nodding, one-sided, twining, struggling, appear better than cernuous, nutant, voluble, divaricate. Words of classical origin are precise to the careful student; but they are unintelligible even to the learned man without express definition, and convey instruction only through an artificial and rare habit of thought.

Proverbs have well been called "the great universal voice of humanity, the wit of one, the wisdom of many," having for their three requisites, "shortness, salt, sense." The profound metaphysical Bacon respected them, calling them "the edge tools of speech, which cut the knots of business." Aristotle made a collection of them; Shakspear uses them freely in his plays; Cervantes in his Don Quixote, Butler in his Hudibras, Fuller and Jeremy Tayler in their works, while the pen of inspiration has indited 3000 of Solomon's "ever young through all the centuries of a nation's existence." The Spaniards with their 25,000 Proverbs, the French, Germans, and even the cold Anglo-Saxons, make free use of them. In the East we have them in profusion, yet singularly they have been made scarcely any use of either in Bengali translations or in Missionary preaching; an instrument of such power has been left to rust! We fear one of the causes is that Missionaries, and those who compose such translations, do not "freely associate with those who speak those languages with native purity, but 'copy the exclusive manners of the Service people.'" We trust this Society will make a collection of them in the different Indian languages, and have them incorporated into their various translations. As examples we insert a few specimens from the Bengali.

| <i>Bengali Proverbs.</i> | <i>Meaning.</i> |
|--|--|
| Ashes on his head, ghee and rice in his house. | One poor in appearance. |
| Adirám, a guard without shield or sword. | A name to live. |
| Painting at the blow of a flower. | An imaginary fear. |
| Wherever the rice is scattered the crows come. | Where the carcass is there are the vultures. |
| Food and no mouth. | The end without the means. |
| A blow of a sword to a dead man. | Striking a man down. |
| A dead crow fears no blow. | Death removes fear. |
| A cannon to kill a musquito. | A Steam Engine to cut cabbages. |
| A chitrag near a torch. | Little use of an inferior when the principal is present. |
| A hunting cat known by its whisker. | Outward signs. |
| The Mákhál fruit, red without, black within. | Appearances deceive. |
| Where the kul tree is, people shake it. | No work without hope. |
| Stealing steel from the smith. | Going into the lion's mouth. |

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| A fakir begs not successfully in his own village. | A prophet is not without honor save in his own country. |
| An ass carrying sugar. | One who does things without reaping any benefit. |
| Throwing spittle to the moon and its returning to one's own legs. | Kicking against the pricks. |
| Pounding gram with a goat's feet. | Attempting great things with little means. |

As a political measure the education of the masses is of vast consequence. We cannot afford to leave them in the same state as the late sepoy army was in, "isolated from liberalising, 'humanising and Christian influences, a mine of ignorance and 'fanaticism, ready to be exploded by any spark." Last year it was the belief of many natives in North India that the English were a small body of sea robbers occupying a small island near Sagur, that they had sent all their soldiers to India, and last of all women dressed up as soldiers (Highlanders in their kilts.) In the Hills the popular belief was that the English wanted to get numbers of natives to bon them down into fat. In Western India a Bombay native stated some years ago that he had met with several respectable natives, who believe that the Government are now desirous of constructing railroads in order that they may be able to escape with facility in the event of their overthrow by some native Rajahs, who, they prophesy, will one day surely conquer them. The people were swayed by any and every report which any foe to British supremacy chose to spread, they had no knowledge which would enable them to detect false reports—we see this in the facility with which the Nana and the Delhi princes gulled the masses.

Having closed our remarks respecting this Vernacular Education Society, which has for its object to bring the masses of India nearer to the English mode of thought through the medium of English knowledge imparted in a Vernacular form, we now take up the subject of another proposal, aiming to make Europeans better qualified for their Indian duties, to mix with and influence the natives, by giving them a preparatory training in England in Oriental History and Languages. Haileybury gave that, but since its abolition no substitute has been found. If a special training is requisite for lawyers, medical men, clergymen, and military men, a portion it is more necessary for men designed for India.

Though neither of those two great conquerors, Napoleon and Frederick the Great, could force the French language on Germany, yet according to some John Bull is to do it in India—he is to learn no foreign language but foreigners are to learn his. This however is not the view of the Horse Guards, which directs all Cadets now to pass either in French, German or Hindustani,

nor at the London Treasury, where in 1854 orders were issued to all Commissariat Officers proceeding to the East "that besides 'perfecting themselves in French and Italian, they will be expected to learn at least one Eastern language.'" Changes are about to be made shortly in the English Consular establishment, by which a knowledge of one or two foreign languages will be made imperative. Even in England itself French and German will soon become a *sine quâ non* for every person of education, and the English on the Continent find by dear bought experience, that if they do not know French they must submit to be imposed on and cheated in every way, and must return as ignorant of the social condition of the people of the Continent as the veriest cockney.

We hail therefore as a good sign the discussions in the columns of the *Times* newspaper, advocating the establishment of an Oriental College in London, to prepare Europeans destined for India through a course of elementary studies in Indian languages, history, &c., for the better fulfilment of their duties, thus giving them an insight into the social condition, history and antecedents of the people among whom they are to spend their lives. The following is a programme of the proposed Institution as laid down by Sir C. Trevelyan.

"It is indeed high time for us to wipe away the reproach that Oriental literature is less cultivated in this country than in some others, which have not a foot of soil in India, and the still greater reproach that our young men proceeding to India have not even that ordinary knowledge of the colloquial language, without which it is impossible for them to do their duty in any state of life to which they may be called there. The hindrance to the cause of good government and religion in India, which has arisen from this, is not to be told. In order that the discussion may take a practical form, I will suggest a course of proceeding for consideration.

1. That an Institution should be established in London for the cultivation of Asiatic languages, and especially of those of India and China.

2. That the selection of the public servants,—civil, military, clerical, &c.,—should have reference to their general education and qualifications; but that, after they have been so selected, they should not be permitted to proceed to India, until they have received a certificate from the governing body of the new Institution that they are sufficiently instructed in the elements of one of the vernacular languages of the Presidency, to which they have been designated.

3. That persons not in the public service, intending to proceed to India as missionaries, merchants, planters, or in any other capacity, should be at liberty to attend the classes on an equal footing with persons selected for the public service, and to offer themselves for examination in order to obtain a certificate of qualification.

4. That facilities should be afforded for the voluntary cultivation of the learned and more difficult languages, such as Sanskrit, Arabic, and the literary dialect of the Chinese, followed by appropriate examinations and rewards for distinguished students; and that the professors should be encouraged to publish, in forms suited for popular information, the result of their

researches into the literary, social, and religious state of the several Eastern nations."

Even France has an Oriental College where some most distinguished Professors teach Persian, Urdu, Chinese, Arabic, Turkish and Sanskrit, and some of the best Oriental works have issued from the Paris press. Vienna has its Oriental College and a splendid Oriental press, while Denmark sends Oriental scientific missions to the East with the view of encouraging the study of Oriental languages: so does Prussia. In Europe there are 33 Professorships of Sanskrit, and even Trinity College, Dublin, is about to establish a chair of Sanskrit. Germany has showered down titles, medals, and "ribbons of all the colors of the rainbow," on such Oriental scholars as Schlegel and Von Hammer, others fostered such men as Wilkins, Gilchrist, Wilson, Hamilton; Roebuck, and Gladwin.

Russia, so successful in diplomacy and our future rival in Central Asia, knows the value of a special and preparatory training for her agents sent to Oriental countries. Catherine the Great laid down the policy which has been invariably acted on since, that a knowledge of the character and language of the country to which her officers are sent, is a *sine quâ non*. Dr. Max Müller of Oxford, in a letter to the *Times*, gives the following account of her proceedings. "Russia has always been celebrated for her linguists, and where her own resources failed, she has called foreign scholars, or native teachers, to lecture on the numerous languages of the East at St. Petersburg, and at some of the smaller Oriental seminaries at Kasan, Odessa, Nova-Tcherkask, and elsewhere. Brosset was called from France to teach Georgian; Dorn and Boethlingk from Germany, the former to teach the language of the Affghans, the latter to lecture on the ancient literature of India. Arabic was taught by Sheikh Mohammed Ajad Tantawi; Turkish and the Tataric dialects by Mirza Kasembek; both of them natives of the countries, the languages of which they had to profess. During the late war, the usefulness of officers, civil and military, well acquainted with the Eastern dialects, was felt more than ever, by the Russian Government, and new arrangements were made to give still greater efficiency to the teaching of these languages. The University of St. Petersburg was called upon to raise the time-honoured number of the four faculties to five, the fifth being the faculty of Oriental Literature." We quote from an ukase of the late Emperor, dated October 22, (November 3), 1857:

"As we consider that the study of Oriental languages may derive great benefit if, instead of being carried on in the different Institutions under

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the Ministry of Public Instruction, it is concentrated at St. Petersburg, the capital offering so many advantages for this comprehensive branch of knowledge, we command as follows :—

The section for Oriental languages, now existing in the University of St. Petersburg, is to be changed into a faculty, with professorships for the following languages :—

1. Arabic ; 2. Persian ; 3. Turko-Tataric ; 4. Mongolic ; 5. Chinese ; 6. Hebrew ; 7. Armenian ; 8. Georgian ; 9. Mandshu.

It is left to the Minister to appoint as circumstances may arise, ordinary and extraordinary professors for each of these languages.

The lectures are open, not only to the regular students of the University, but to all who may desire to avail themselves of the instruction given by the professors and teachers. And each public office may send a certain number of students, to whom a knowledge of Oriental language is deemed useful in their respective employments."

The lectures were opened on the 27th of August, (September 8), 1855, and the following is a list of the subjects actually taught by the Oriental faculty :—

"1. History of Persia ; interpretation of Persian poets, such as Sadi, Hafiz, and Atter ; translation into Persian ; Persian caligraphy ; Persian conversation.

2. Turkish grammar ; history and geography of the Turkish Empire ; translation into Turkish ; history of Tataric literature.

3. History of the Arabs : translation into Arabic ; interpretation of Arabic authors from MSS. ; Arabic grammar ; Koran.

4. Mongolic grammar ; translation from and into Mongolic ; history of Dshingis Chan and the Mongols to the present day ; history of Mongolic literature ; Kalmyk language and literature.

5. Chinese and Mandshu grammar ; history of Chinese and Mandshu literature ; interpretation of Chinese and Mandshu authors.

6. Armenian grammar ; translation from and into Armenian.

7. Georgian grammar ; translation from and into Georgian ; history of Georgian literature."

This may seem a frightful list, and yet, since the first opening of the Oriental Academy, three new professorships had to be added, one for Tibetan, one for the Affghan language, and one for Sanskrit."

Some, however, in their zeal against Orientalism, would abolish all Sanskrit and Arabic Colleges in India, forgetting that these are in various cases the only media by which Europeans can exercise any influence whatever over a certain class of minds who are held in great estimation by the natives ; that, according to their theory, such men as Dr. Ballantyne of Benares and Ishwar Chunder Vidyasagar of Calcutta, would have had to leave a leading class of minds without any direction in the right path. So the Pundit and Moulvie classes, the leading minds in the country among the masses, are to be left without any useful influence. Had Nana Sahib and the Ranee of Jhansi in their youth been properly trained, how different might have been

many events in the late catastrophe. The dispute in India on the value of the Sanskrit and Arabic Classics is only another form of the controversy that raged in France in the days of Des Cartes and Malebranche, and in England in Swift's time, as to the value of the Latin and Greek Classics, when the Pope fulminated bulls against the study of Greek as Pagan, and of Hebrew as Jewish.

The tone of opinion of Europeans newly arrived in India, who are ignorant of the history, manners and language of the people, calls for measures being taken speedily to give Europeans designed for India some training for India before they leave England. Hence we quite concur with the following remarks made by the proposers of the Oriental College :—

“ Men who arrive in India after having passed their two examinations—one general, the other special; one purely European, the other chiefly Oriental—will enter upon their duties well impressed with the superiority of their own country, well prepared for the difficulties that have to be encountered, and determined to work for the advancement of all measures in which the interests of both countries are identical. They will look upon the dark inhabitants of India with a feeling of curiosity which is sure to grow into sympathy,—a feeling unknown and unintelligible to those who go there unprepared, or full of prejudices. It is in human nature that we take an interest in matters to which we have devoted much of our time, and about which we know something. A student of art will learn to admire pictures which to the unschooled eye are simply repulsive. A student of history will spend many days in searching for a document which to others might seem valueless. It will be the same with those who have paid some attention to the study of the classical language and literature of the Brahmans. As a classical scholar is moved when he sees the unchanged shores of Greece rising on the horizon—as he feels an interest in hearing for the first time the spoken Greek with its living accent—as he is pleased when reminded by what passes before his eyes of the customs, the legends, and the poetry of the classical past,—nay, as he cannot altogether withdraw his sympathy even from the degenerate descendants of an ancient and noble race, the civilian who has but read his *Nâla* or *Sakuntala* will look upon the Ganges and the ancient cities washed by its waves with a mingled feeling of admiration, sympathy, and pity. He will find his mind nerved and tuned for the most important part of a civilian's duty, that of gaining the good-will, the confidence, and ready co-operation of those whom he is sent to govern. He will be anxious to meet those who still speak the language to which he has devoted so many hours; he will have questions to ask, and his hours of leisure will not be hours of idleness. Conversation with the natives will soon become a pleasure to him, because his knowledge of Sanskrit will make him feel at home in almost any dialect of India.”

The Anglo-Saxon is equally proud and exclusive on the banks of the Ganges as of the Rhine, in the Champs Elysées of Paris as in Chowringhee of Calcutta. Frenchmen may tolerate his independence on account of the money he brings, but will Hindus for the money he takes away?

Europeans by a careful study of the language and character

of the natives, must qualify themselves for seeing for themselves, and not trusting to interpreters. The following remarks of the *Saturday Review* respecting sepoy officers are, we fear, applicable to other Europeans also. "Why should the officer talk with the 'only Subahdar in the verandah of his Bungalow when he might flirt with the Major's daughter or the Colonel's niece in the 'well furnished drawing room; or there is the book club, and the 'billiard table, and the racket court. Jack sepoy is only a bore: 'the officers do not know the men and the men do not know the 'officers: the officers stand aloof more and more from the native 'soldiers." Is it surprising in this case that we knew little of the enemy's movements, that our Intelligence Department was without news, and that our officials cried Peace, Peace, when a mine was ready to explode under our feet.

The men who will have influence over the natives must be men who mix with the natives and know them, like Colonel J. Abbot, described by Colonel Edwardes as one who had literally lived among the Hazara natives as their patriarch. Every man, woman and child in the country knew him personally, and hasted from their occupations to welcome and salute him as he came their way,—“and what was the result, the district of Hazara, which was notorious for its long 'continued struggles with the Sikhs, is now about the quietest, happiest, and most loyal in the Punjaub.”* Of another Punjaub Civilian Mr. Raikes writes;—“his was the *barahdaree* 'system of administration,—living in a house with twelve doors 'and all open to the people;” of another he says;—“as a leader he 'lived among the soldiers, as a civilian among the people.”

On the neglect by European agents of those studies which would enable them to have some influence over the Moslem mind, we quote the opinion of the late Sir H. Sleeman who moved so much among natives.

“The best of us Europeans feel our deficiencies in conversation with Mahomedans of high rank and education, when we are called upon to talk upon subjects beyond the every-day occurrences of life. A Mahomedan gentleman of education is tolerably well acquainted with astronomy as it was taught by Ptolemy; with the logic and ethics of Aristotle and Plato, with the works of Hippocrates and Galen, through those of Avicenna, or, as they call him, Boocalee Shena; and he is very capable of talking upon all subjects of philosophy, literature, science, and the arts, and very much inclined to do so, and of understanding the nature of the improvements that have been made in them in modern times. But, however capable we may feel of discussing these subjects, or explaining these improvements in our own language, we all feel ourselves very much at a loss when we attempt to do it in theirs. Perhaps few Europeans have mixed and conversed more freely with all classes than I have, and yet I feel myself sadly deficient

* Raikes' Revolt of the N. W. P., p. 28.

when I enter, as I often do, into discussion with Mahomedan gentlemen of education upon the subject of the character of the Governments and institutions of different countries—their effects upon the character and condition of the people; the arts and sciences; the faculties and operations of the human mind, and the thousand other things which are subjects of everyday conversation among educated and thinking men in our own country. I feel that they could understand me quite well if I could find words for my ideas. But these I cannot find, though their languages abound in them; nor have I ever met the European gentleman who could. East Indians can, but they commonly want the ideas as much as we want the language. The chief cause of this deficiency is the want of sufficient intercourse with men in whose presence we should be ashamed to appear ignorant; this is the great secret, and all should know and acknowledge it. We are not ashamed to convey our orders to our native servants in a barbarous language. Military officers seldom speak to their sepahs and native officers about anything but arms, accoutrements, and drill, or to other natives about anything but the sports of the field; and as long as they are understood they care not one straw in what language they express themselves. The conversation of the civil servants with their native officers takes sometimes a wider range; but they have the same philosophical indifference as to the language in which they attempt to convey their ideas; and I have heard some of our highest diplomatic characters talking without the slightest feeling of shame or embarrassment to native Princes on the most ordinary subjects of every day's interest, in a language which no human being but themselves could understand. We shall remain the same till some change of system inspires us with stronger motives to please and conciliate the educated classes of the native community. They may be reconciled, but they can never be charmed out of their prejudices or the errors of their preconceived opinions by such language as the European gentlemen are now in the habit of speaking to them."

We have one proof of the evil effects of ignorance of India in the cry now raised for English law, English lawyers, and the English language for Courts of Justice. Whereas Indian experience points to the Punjab as the model for Courts, thus described by Colonel Edwardes. "Courts of Justice cheap, accessible and prompt; the exclusion of Vakeels: the confronting the real parties: the arbitration by Panchayats." Sir Henry Lawrence inculcated on his officers "to live among the people, to decide more cases under trees and as few under the punkah as possible, to ride about their district and see and hear for themselves instead of through the Police and Am-lahs" Mr. Raikes, Judge of the Sudder at Agra, states he has seen in a Native State—the Rajah of Patiala's—better justice administered than in the Company's Courts.'

Meredith Parker, in his "Empire of the Middle Classes," well remarks on this. "It would be rather unkind to inform a man

* The Court of Directors in 1836 decided that the Vernaculars were to be the language of the Courts on this ground. "It is easier for the Judge to acquire the language of the people than for the people to acquire the language of the Judge: the poorer classes who are the parties concerned in the great majority of cases which come before our Courts, cannot be expected to learn a foreign language."

'in an unknown tongue that he was going to be hanged, after a trial not one word of which he understood from beginning to end." Missionary Societies ought to encourage this Oriental College. Dear bought experience has taught them they cannot always look for the propagation of Christianity in India to foreign agents sent out at considerable expense who, subject to sickness, and waywardness of temper, in various cases abandon their work, and even when they continue few of them know the natives or the natives them. The result is a mere fraction of missionaries are qualified to become what is the real means of making head in India,—the nucleus for gathering a band of disciples around them. To discharge the duty they should be well up in the various phases of the native mind. The learned class of the Hindoos and Mussulmans, though few in number, yet are weighty in influence: these have been generally shunned by missionaries who had little preparatory Oriental study to enable them to cope satisfactorily with them. Hence even in Benares itself, the seat of learned Hindooism, there is not now a single missionary acquainted with the Sanskrit language. We were glad to see the following advice on this subject recently given by E. Underhill, Esq., Secretary to the Baptist Mission Society, to missionaries at Muttra. "The missionary had need to know the Shastras, and be able to meet the learned pundits, with which the place abounds, by an intelligent appreciation of the false philosophy on which the great fabric of Hindooism is built."

The Church Missionary Society and Gospel Propagation Society have instituted a course of examination in India in the Vernacular for all their Indian Missionaries, before they are appointed to take charge of a mission. It comprises translations from English into the Vernacular and vice versâ, the writing a short sermon in the Vernacular, and conversation with natives. The Church Missionary Society has repeatedly recommended the study of Sanskrit or Arabic to some of its missionaries. The Conference of Calcutta Missionaries some time ago, on their discussion of what further means could be adopted for missions among the Mussulmans, unanimously recommended that missionaries for the Mahomedans should know enough of Arabic to be able to quote from and interpret the Koran. The need of an Oriental College to lay the foundation with Missionaries intended for India, in "home training," the acquiring some knowledge of the learned languages, literature, philosophy and theology held in esteem by the Mussulmans and Hindoos "as the condition of gaining their good-will and respect, and as the means of acquiring that mastery of their religious and philosophical ideas which can alone enable the advocate of Christianity

‘to argue with them on an equal footing, in an enlightened spirit ‘and in an effective manner,’ has long been obvious to persons who have studied what Missionary qualifications ought to be. J. Muir, Esq. in his able “Remarks on the training of ‘Missionary Agents,” suggests that the students should attend a course of

“Lectures on the characteristics of these languages, and the literature they embody, on the relations of that literature to the mental peculiarities of the people among whom it is current, and on all questions bearing upon the best methods of rendering the languages efficient and attractive vehicles for the conveyance of truth. In the theory and art of reasoning and persuasion, in the best modes of presenting new and strange truths to the ignorant and superstitious, as well as to those whose minds are perverted by false philosophy, by prejudice, or by interest ; he should be made acquainted with the superstitious and religious systems, whether popular or philosophical, of those for whose conversion he is to labour, and with the principles on which their several false doctrines may be most effectually controverted.”

Much is said now in England, and with great justice, of the importance of missionary preaching to the Heathen and Mussulmans of India. But an important point is always omitted—the qualifications for the work. One of these is surely, a thorough acquaintance with the various modes, phrases and similes by which orientals express their ideas. This can only be gained in India by a conversancy with Indian history and popular native literature, and by intercourse of a free and easy nature with natives of various classes in society. We fear that judged by this standard not one-tenth of the preaching missionaries is qualified. Vociferation is not impression, and the ringing changes on a few theological topics delivered in a dry, cold, Anglo-Saxon way, is not calculated to tell on Asiatic minds. European Missionaries are generally wide as the pole asunder from orientals in the choice of topics. Even dry law has been enshrined in poetic imagery; as an instance of this we give the following version of Professor Griffiths from Menu, the oldest Hindoo Lawgiver, on the duty of Kings:—

“He that ruleth should endeavour with his might and main to be
Like the Powers of God around him, in his strength and majesty ;
Like the Rain-God in due season sendeth showers from above,
He should shed upon his kingdom equal favour, gracious love ;
As the Sun draws up the water with his fiery rays of might,
Thus let him from his own kingdom claim his revenue and right ;
As the mighty Wind unhinder’d bloweth freely where he will,
Let the monarch, ever present with his spies all places fill ;
Like as in the judgment Yama punisheth both friends and foes,
Let him judge and punish duly rebels who his might oppose ;
As the Moon’s unclouded rising bringeth peace and calm delight,
Let his gracious presence ever gladden all his people’s sight ;

Let the king consume the wicked—burn the guilty in his ire,
Bright in glory, fierce in anger, like the mighty God of Fire ;
As the General Mother feedeth all to whom she giveth birth,
Let the king support his subjects, like the kindly-fostering Earth."

It may be said the plain preaching of the Gospel is enough. True, God can convert without means at all, but he generally chooses suitable instruments. Now what is plain preaching to a Englishman is positively dull, dry and insipid to an Asiatic. We give our question to the mere Anglo-Saxon—had Mahomed written his Koran in the style of an Anglo-Saxon book, and preached in the style of Anglo-Saxons, where would his preaching influence have been? Even the books of the Bible, designed for all men, shew by their style that an Anglo-Saxon could have had no hand to them.

What an intensely oriental book is the Bible—so much so that it requires years before the Anglo-Saxon mind can fully understand the force of those brilliant, sparkling, oriental metaphors and similes with which Holy Writ is so profusely sprinkled. Contrast the exquisitely beautiful discourses of Christ which; on the model of eastern apologue, never propound a dogma without clothing it with a simile, with the vapid, dull discourses called Sermons which issue in such swarms from the English press. Our old English writers such as Jeremy Taylor, however, followed the Bible model in "thoughts that breathe and words that burn." Where lies the great power of a preacher like Dr. Guthrie—it is in his semi-Asiatic mode of illustration, bringing all nature to furnish the golden casket of truth.

When our blessed Lord, who came not only to atone for mankind but also to "set us an example," taught, how different was his style and oriental manner from that of modern preaching "By Christ's touching parables, striking similitudes and familiar illustrations, he commanded the attention and awakened the sympathy of all who heard him, however prejudiced or opposed they might be to the humiliating truth which they heard." The fact that "without a parable Christ spake not to the people," is one of the reasons why "the common people heard him gladly." The Wesleyans in England understood this well in last century when many of their ministers, tailors or carpenters originally, by their familiar style and homely illustrations drew crowds, while Fellows of Colleges preached to empty benches.

Even in England, truth through similitude is popular. What a wondrous power for good has been exerted by the Pilgrim's Progress. Albeit written on the thorough oriental principle of clothing abstract truth in the form of allegory, it has been pronounced even by the metaphysical Anglo-Saxon Coleridge as

“the best summary of evangelical theology ever produced by a writer not miraculously inspired.”

Luther, from his understanding the force of music and vernacular poetry on the minds of his countrymen, devoted special attention to working the people with a taste for good hymns and tunes. But in Bengal what vapid and doggerel compositions have we generally under the name of hymns for native Christians, while on the other hand choice language and high poetic talent is shewn in the hymns composed by the Hindus in honour of their Gods or of any event of the day. We need a Cowper and a Charles Wesley for the Christianity of Bengal. Had Missionaries been acquainted with oriental tastes, such compositions as many of the existing Bengali hymns, so degrading to Christianity, would never have been tolerated.

We do trust that both the objects we have been advocating, an *Oriental College* in England for Europeans destined to labour in the East, and a *Christian Vernacular Education Society* for leavening the masses in India, will meet with support. They have the sympathy of men of experience in India who will be glad to co-operate. The Queen's Proclamation has thrown oil on the waves, and every man must carry out its spirit. This cannot be done by the quixotic plan of trying to turn an Asiatic into an Englishman, but by the Europeans becoming, like St. Paul, “all things to all men.”

ART. III.—1. *Report on the Revenue Administration of the Lower Provinces, for 1856-57.*

2. *The Revenue Hand Book, by J. H. YOUNG, ESQ.*

3. *Official Papers, Manuscript.*

A GREAT Indian question is like a huge round of beef: you may cut and come again. And no man will deny that the Perpetual Settlement, and the ownership of the soil, are amongst the great Indian questions of almost every administration. Recent events have set journalists, statesmen, and ordinary administrators to discuss all those measures which may best contribute to the permanence and solidity of our rule. Indeed, we fear that in the din of conflict, the crash of theories, the explosion of old creeds, and the distrust of all experience, some of our leaders of thought and opinion may have been carried a little too far, and like the would-be fine lady in one of Dickens' Novels, may have formed and expressed "an immense variety of opinions upon an immense variety of subjects." This *Review* has, however, as far as was possible, hitherto maintained its principle of being the avowed organ of no single party, but of sifting and analysing all those measures of reform or innovation, by which we hope to reach something tangible and practical at last. No question can be grander in proportion, more intricate in detail, or more paramount in importance, than that of Indian revenue and rent. No interests demand more attention, or fill a greater space, than vested interests in land. And though we can scarcely hope to dismiss the Cornwallis Settlement, to fix the absolute ownership of the land on any one class, or fully to review the revenue operations of a single year, in the compass of one article, we believe ourselves to possess some information not incorrect, and perhaps not wholly uninteresting, which may throw a little light on the effect of our revenue system, and on the possibility of enhancing taxation, introducing English landlords, and raising the value of land.

The Revenue Report of the Sudder Board for 1856-57, which lies before us, is like many of its predecessors, a clear and elaborate report. Men who delight in statistics will find themselves amply rewarded by a perusal of the sixty-nine paragraphs, and the twenty-four appendices, into which are packed a great many things which we want to know regarding the collections, the remissions, the changes in estates, the summary suits, the defaulters, the settlements and the sales, in no less than fifty-two districts, extending from the narrow point of Sandoway on the one hand to the disturbed districts of Be-

har on the other, and from the most Eastern Frontier of Assam to the unhealthy but profitable annexation of Sumbhulpore far to the West of the Grand Trunk Road. We think, however, that more may be done by a closer examination of the working of the Settlement of Lord Cornwallis in one particular district; and without discouraging such readers as honor us with a perusal, by alarming statements and undeniable figures, we hope to present them with some facts and deductions which may help to set one or two speculations at rest. With this intention we shall devote this paper mainly to the land revenue of one single Zillah.

We have seen lately what a district in the North West Provinces was like during a rebellion.* We now take a district of Bengal, which during the same rebellion, remained undisturbed by aught but vague rumour. In many respects it is a fair sample of the rich and populous tracts included in the Perpetual Settlement. Extensive in size, traversed in one part by several navigable rivers; studded with numerous factories, productive of all the articles essential to the comfort and existence of half a million of natives, not overtaxed, not under-populated, with little or no jungle remaining for the axe to displace, with swamps that from natural causes are year by year converted into solid acres, it is, on the whole, as good a selection as we could make for illustrating some of the main points which characterise landed interests on this side of India. It yields a revenue little short of twelve lakhs in the year. European capitalists are concerned in its products. Influential Zemindars accumulate or disperse its wealth, and increase its litigation. The condition of its population, their possible improvement, the security of real property, and the maintenance of the various complex interests which have silently grown up with the growth of our administration, present a wide and seemingly interminable field of inquiry. But before considering the present state of the rent and revenue there, we shall glance at the condition of the district about one hundred years ago.

It is the fashion to talk of the Zemindarry tenure as the creation of Lord Cornwallis. But the truth is that the nucleus of the system existed in the days of Hastings and Clive. When Shore was luminously expounding the principles on which the revenue of Bengal ought to be collected, he noted it as a fact, that a tract of country yielding one crore of Rupees, or more than one-half the gross revenue of the whole province, was held by some seven Zemindars. These wealthy individuals are now, most of them designated by the title of Rāja, that is, wher-

* See Article "A District during a Rebellion" in No. LXI of this *Review*.
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ever they still survive. And the tract of country with which we are now dealing was, to speak roundly, parcelled out between two of the seven whom Shore enumerated, with the addition of a third. These three, between them, were liable for the revenue of a country which extended from the Ishamatti not forty miles East of Calcutta to the North bank of the Poddha, or Ganges. Of the three families one is reduced from the receipt of rents exceeding half a million to a poor pittance of two or three lakhs a year. The second is represented by an individual on whom a liberal education, and the direct superintendence of watchful Guardians, Collectors and Commissioners, during a lengthened minority, have bestowed just intellect and capacity sufficient to enable him to squander a good patrimony. The third, though noted for careless management and consequent indebtedness, is a generous landlord, a loyal subject, and a *gentleman* with tendencies somewhat in favour of the old school. All these have seen large portions of their Zemindaries alienated to form new and independent tenures. Each, at the commencement of our rule, was admitted as the individual responsible for the Government demand over a very extensive area. Each even then, enjoyed some of those advantages which from use and habit, we are accustomed to associate with the status of a Zemindar, as distinct from that of a mere collecting agent.

Time wore on. The temporary administration by Dewans, the limited settlements for five years, and the able disquisitions of a crotchety official like Francis, a sanguine administrator like James Grant, and a clear-headed and well-informed Civilian like Shore; himself topped by Lord Cornwallis, resulted in the famous Settlement of 1793. But even in the above short period the number of distinct estates, that is of specific portions of land, on which specific jummas had been fixed, and for which separate engagements had been entered into by individuals liable for the dues of Government, had very considerably increased. The inevitable tendency of our administration, coupled with the mere enlargement of families, is against the permanence of huge Zemindaries. On the other hand the same rule has very largely increased the value of property, and has invested the original Zemindaries now split up into scores or hundreds, with a far greater measure of security than is commonly believed.

In the middle of the last century there were thus three families, the heads of which were responsible for the revenue of one district. In 1793 the number of estates for which separate engagements had been signed, was three hundred and seventeen. Sixty-five years afterwards, or in 1858, the estates on the roll or Towjih of the collectorate, number no less than four thousand, five hundred and fifty: a number which will be found even

more accurate than that recorded in the Board's Report of this district for 1856-57. *

The causes of this increase are not very far to seek. In some cases families grew and expanded: the usual disputes about management and division ensued, and the estate was divided by the revenue authorities, after an amount of investigation and petitioning which would have disposed of one-half of the claims to compensation arising out of the Mutiny. In others, the head of the family made his own distribution before death, or gave, during his lifetime, this estate to a favourite dependant, or that to be an appanage for a younger son. In a third class of cases, whole Pergunnahs, which were then co-extensive with vast and profitable Zemindaries, were put up to public sale not in the district, but in Calcutta itself. A fourth class arose out of the creation of *Kharija* or independent Talooks under the free will of the Zemindar, who marked off distinct portions of his Zemindaries receiving a round sum down to meet some financial exigency. We have good reason to believe that the relentless sales of land for arrears of revenue, and the creation of distinct small estates by the voluntary act of the landholder, went on at an alarming rate during the first ten or fifteen years of this century. All the above causes and a few others may explain fully the multiplication of Zemindaries. Extravagance and recklessness in the owners, as well as peremptoriness in the enforcement of the demands of the State, incredible mismanagement, stupendous frauds on the part of subordinates, unparalleled litigation on one hand, or mere neglect of rights and responsibilities on the other, sundered and split up the immense tracts of country for the revenue of which a few had been liable, into hundreds of smaller and more convenient estates. We are anxious not to encumber this article with statements and figures, but something of the kind is so suggestive of the peculiarities of our system, and of the tenacity of life which the Hindu exhibits, that we subjoin details in this place.

The number of Mahals or estates we have stated to be 4,550. These, again, consist of 4,493 immutably assessed, and 57 with a revenue fluctuating, but not likely to be largely increased. The above are held by men of different castes in the following proportion.

| | | | |
|---------------------------|-----|-----|-------|
| Hindu Sudder Proprietors, | ... | ... | 3,855 |
| Mohammedan Ditto, | ... | ... | 643 |
| European Ditto, | ... | ... | 52 |
| Total, | ... | ... | 4,550 |

The Hindu Proprietors again are sub-divided into the following list:—

| | |
|-----------------------------------|-------|
| Brahmins of various ranks, | 1,328 |
| Kayast or Writer, | 2,203 |
| Baidya or Physician, | 209 |
| Bunnia or Shopkeeper, | 14 |
| Teli or Oilman, | 10 |
| Maddak or Confectioner, | 5 |
| Khatri or Military, | 5 |
| Kaibarto or Agriculturist, | 25 |
| Shaha or Vintner, | 32 |
| Karmokar or Blacksmith, | 8 |
| Tanti or Weaver, | 5 |
| Bashlum or Mendicant, | 10 |
| Chandal or Outcast, | 1 |

Total, 3,855

From the above it will at once be seen that the 'upper ten thousand' still maintain their ground. Property is still in the hands of those whom we may reasonably suppose to be alive to the advantages of education. The money making shopkeepers, the retail traders, the petty merchants, have not completely dispossessed the rural families of respectability and worth. Estates have indeed changed hands or been cut into pieces, but ownership still runs in the old channels. The number of Hindus of the highest caste in the social pyramid are still more than double all the Mahommedans put together. The pen still monopolises a large portion of goodly heritages. The scales and the yard measure have not won the day. Neither the Mahommedan invasion, nor the English rule, have resulted in the wholesale transfer of ancient rights to new races.

As to the actual revenue no single estate pays as much as a lakh of Rupees, and only two estates are assessed at more than half a lakh, one of which is a portion of a remarkably fine Pergunnah, and the other is a very well known estate devoted, by the will of a former owner, to certain pious, and charitable, and educational purposes, under the immediate superintendence of Government. The estates pay revenue according to the sub-joined list:—

| | Number. |
|-----------------------------|----------------|
| Above 50,000 Rupees, | 2 |
| Ditto 10,000 do. | 22 |
| Ditto 5,000 do. | 10 |
| Ditto 1,000 do. | 88 |
| Ditto 500 do. | 84 |
| Ditto 100 do. | 419 |
| Under 100 do. | 3,925 |
| Total, | 4,550 Estates. |

Considering that in some portions of the district the number of Mahommedans of the lower orders is to the Hindu population as three to two, or even four to five, the comparative failure of Mahommedans to acquire land is worthy of note. There is no positive disqualification under which Mussalmans labour, and often no lack of talent exhibited by them in particular lines. Equally good Native Judges are to be found on the bench from those who have studied Aboo Hanifa and the Koran, as from the class brought up in the tenets of the Shastras. Some of the best of the Darogahs are Mahommedans. But it takes a long time to root out an ancient race. The Hindoo clings to his land with the love of a Highlander, and with the pertinacity of Naboth. The old families which partitioned out Bengal from the Megna to the Hooghly, were principally Hindoo. Their numerous dependants, their local agents, were of the same nation, and these are precisely the men who in times of difficulty, rose on the ruins of a patron, and acquired lands for themselves. The spectacle of Gilbert Glossin, Writer to the Signet, purchasing at a public *roup* the estate of an Ellanfgowan, has, we fear, been exhibited scores of times in a dozen different Zillahs. But new men, whether Hindoos or Mahommedans, have become Zemindars and Talookdars by one inevitable process. Whether they collected rents on behalf of their patron for which they did not account, but allowed the estate to come to the hammer by a judicious failure to pay its dues, or whether they took fair advantage of the absence of bidders and made lucky purchases at low prices, or whether in trade and speculation they amassed money which they desired to convert into acres, they have one and all, by various routes, arrived at the unpleasant but inevitable terminus of having to pay for their purchases. We have had a little too much of a very plausible outcry against Government as having discouraged the settlement of Europeans on the land. Government has no more hindered Englishmen in general from buying estates within the last twenty-five years, than it has specially singled out the 52 Europeans above noted for its protection, or lent its powerful aid to establish nearly four thousand Hindoos as landed proprietors, in preference to about some six hundred and fifty Mahommedans, who have stepped in by mere chance. If it be said that the time to have purchased at a low rate has long passed away, and that estates are no longer bought with the same facilities as they were at the commencement of this century, the reply is that, at that period, Europeans were not even amenable to the ordinary Civil Courts, and their exclusion from land was a simple necessity, and we doubt much whether any *European capitalist* then thought about Indian soil as an investment. At this day, whoever wants a large and profitable

estate must pay, largely for it by private conveyance. The best estates never come to the public hammer. The bare notification of such a possibility would bring a dozen rival Zemindars into the field. It was said by some of the unofficial Europeans, who gave their evidence before the Committee of 1853, with far greater candour and fairness than the *Colonists* of 1858, that men might wait for years, with the money in their pockets, before they could sight even the chance of a purchase at public auction. The cry against the severity of the Sale Law, as detrimental to permanency of right, like most other patriotic cries, has also been much too noisy. We have just seen that by far the greater number of estates are assessed at a very low figure, and that only thirty-six pay a good round lump of taxation. In the district we are treating of, only 8 estates were put up for sale in the year 1856, and only 65 in all the past five years. Of the whole number of estates put up to auction, through the whole province in which the Perpetual Settlement prevails, nearly one-half belong to the district of Chittagong, and any one who has taken the trouble to cast his eye over a *Gazette* containing advertisements of approaching sales, will hardly be tempted, we think, to invest his money in the purchase of Mouza Kassimnugur, difficult to be identified, in a Turruf with a hard name, and rated at a Sudder jumma of 1 Rupee, 9 annas, and 9 pie per annum. The Sale Law, in its very harshness, has driven landholders to look after their affairs, and has saved them from ruin. In only one district, throughout the whole of the Lower Provinces, has there been anything like active speculation, in the last year of the Board's Report, for estates sold for arrears of revenue. In the districts in the immediate neighbourhood of Calcutta landed interests appear almost as secure from risk as they do in the allodial tenures of England. Not 5,000 Rs. were spent, by purchasers of estates, at public auction, in the year 1856, in four metropolitan districts, one of which is the subject of our notice.

To get at the Government revenue in any district is a mere matter of reference to reports. The gross taxation on the whole area of the land can be ascertained to a fraction of a rupee. But to say what proportion rent bears to revenue is not so easy. The following calculation may perhaps serve as a basis. By returns procured from departments other than the revenue, we have ascertained that the number of villages in our district amounts to about 4,500. In other words there is a geographical village for about every revenue mahal or estate. Most people are aware that geography and revenue have no regular connection with each other. Some estates are, indeed, made up of a single *mouzah*; many others are composed of pieces of half a dozen dif-

ferent villages: others are neatly rounded off, embrace four or five villages and form as compact a property as an estate in a ring fence; and others again are still commensurate with a whole or half a Pergunnah. Taking then the number of cultivated and inhabited villages to be equal to the number of estates on the Government roll, though they have no other reference or connection therewith, we have four thousand five hundred villages responsible for a revenue of twelve lakhs a year. In other words each village would contribute revenue to the amount of 267 Rs. a year. And taking each village, on an average, to include sixty houses, the pressure on each house would be rather under 4 Rs. 8 annas a year. But we believe these statements to be less favourable than census and measurement would prove.

Besides the ordinary revenue derivable from taxed estates there is something levied from those Mahals which have been purchased on account of Government, and where the right to revenue merges in the right to rent. The whole sum derivable from this source in both the Regulation and the extra-Regulation Provinces of Bengal, is about fifteen lakhs and a half, a sum below that derivable from the Crown lands in England, which the late returns give at £270,000. In the single district of our article, the collections do not amount to 20,000 Rupees a year. *Khass mahals* are usually expensive parts of the revenue administration. Government has to buy the estates which invite no purchasers. When it has bought them, it has to identify their sites and boundaries, and to resist half a dozen claimants who maintain that their lands are being invaded to supply the deficiency of the purchased estate, which has gone into the river or taken wings and flown away. And when it has identified and marked out the boundaries, the rent has to be collected by legal means from recusant or disreputable Ryots on indifferent soils, or villages half ruined by fever, inundation, or notorious as the haunts of crime. Farming in the hands of gentlemen is usually a losing speculation. To be in charge of the *Khass mahals* and to work them efficiently was, in former days, the sure sign of a rising young officer. In the present day it is generally found that the safest and simplest plan is to farm out the estates at a moderate rent for a term of 10, 20, or 30 years.

A third source of revenue are the resumed estates. They have been comprehended in the number of estates on the roll, and their revenue is included in the twelve lakhs leviable in the district, which revenue the resumptions increased by rather more than a lakh of Rupees. The whole annual increase from resumption to the revenue, all over the Lower Provinces, may be set down at about 37 lakhs. European officers have begun to forget, though natives still keenly remember, the irritation and discom-

tent caused by these inquisitive measures. We will venture to say that this is the one grievance which educated or respectable natives still acutely feel. It surpasses any vexation arising out of the law's delay. It banishes speculation as to the conduct of the police. It effectually shuts out all surmises as to the injustice of the salt tax. We much doubt whether the resumptions would have been persevered in, had Government fully and clearly anticipated the limited increase to the revenue as compared with the unlimited amount of real discontent. And we think that it would be possible to raise twice the amount tomorrow; in these days of financial exigency, by simply raising the salt tax through one stroke of the pen, without calling forth more than half a dozen letters in the newspapers, or engendering anywhere one quarter of the ill-will which arose out of the Company's attempts 'to enjoy its own again;' for this is the exact equivalent to the well known and detested phrase *baz-yaft*.

The resumptions were, however, softened and toned down, as operations progressed. Some estates, by valid title or length of prescription, escaped the grasp of the official. Many were settled with the old rent-free proprietor at a very low assessment: an immense number of small pieces of land were released at once, either because the total of the grant was less than one hundred beegahs, or because no single one of the pieces making up the grant amounted to fifty beegahs. We can say little either in the way of praise or censure, on the very limited number of resumptions which are now instituted by Government. It should be clearly understood that all active inquisition has long ago ceased. No person is called on to show why he claims to hold rent-free land, unless the course of the survey or of settlement should disclose that he is holding lands in excess of an estate, *without any ostensible title at all*. Even with this, the operations of 28 districts are not marked by any resumptions whatever.

But this is not sufficient to set at rest the anxieties of small rent-free proprietors. The claims of the Government are foregone, but those of the Zemindar remain. No lapse of time, it has been ruled, bars the right of this individual to rent, or in legal phraseology, the mere existence of a claim to rent is in itself a valid cause of action *which perpetually recurs*. The Zemindar may sue to ~~revoke~~ ^{rescind} a rent-free tenure under the terms of the resumption law, or he may sue simply to assess a tenure at a proper rate, and may call on any under-tenant within his estate to prove the title by which he holds his property and the deed which fixes his rent. There are thousands of small pieces, as we have said, held rent-free by men of all castes and occupations, all over the country, to which, in the present state of the law, mere efflux of time gives no additional security. On the contrary

every additional year may be the cause of invalidity. A generation passes away : documents are exposed to injury from damp, heat, storms, and insects : witnesses die : a troublesome landlord becomes too powerful for his neighbours : a crotchety Judge may require impossible proofs, or may unhesitatingly rule that title deeds are rank forgeries and that long prescriptive enjoyment is in itself no proof of right. It is high time that the Legislature should interfere to lay down some positive rule, above the changing or erroneous data of Judicial officers, in order to secure the comfort and contentment of a large but not a privileged class. We believe that the Bill for the Limitation of Suits introduced by our late Chief Justice, will effectually provide for this. It will not pass into law one day sooner than is absolutely necessary. Rent-free land is rising in value. It is immensely prized by all those individuals, half way between Zemindar and mere Ryot, whom our rule in Bengal has called into existence, and who thrive by speculation, service, or trade. It is a more tempting investment for a substantial householder than a new loan, or a Treasury bill. It is just possible, too, that it may be the means of ameliorating the condition of the agriculturist, who himself expects a lighter taxation when his Landlord is untaxed. To fix some definite limit to harassing and unexpected claims for rent, to promulgate a sharp and decisive clause through which no legal ingenuity shall be able to drive a hackery or a palanquin, will be one good step in the cause of progress to be followed by others of which we have heard something lately in the shape of Amended Procedure, Courts of Small Causes, and prohibitions against Secret Trusts, and Rival Markets.

We sum up the results of our survey of the revenue functions in a single district. The Government demand is about twelve lakhs a year, including the increase from resumed estates. Government as Zemindar collects rents, we will not say holds lands, to the amount of 20,000 Rupees a year. In the space of two years not a single person was imprisoned as a defaulter, on account of revenue, and only eight small and insignificant estates was put up to sale, on the same grounds, within the year. The amount of taxation falls on each house, taken one with another and including an immense area of cultivation, at the rate of about Rupees 4.8 a year. The security of Zemindarry tenure cannot well be improved by any means short of the absolute extinction of the land tax, and the position of the Zemindar is quite as influential as is compatible with the freedom of the executive, and with the rights of other classes.

An enquiry into revenue leads naturally to a consideration of other rights besides those of the Government at the top of the pyramid, and of the Zemindars immediately beneath ; wherefore

descending a step lower, we come to the under-tenants or middlemen, of whose insecurity we have all heard. In the present state of our Revenue Law, we may affirm generally that no one class of under-tenures is specially protected by legislation with the exception of those known as Putni Talooks. A Putni Talook, is, as its title expresses, nothing less than an estate within an estate, a Talook created, let fall, or established on the whole or on part of the Zemindarry by the voluntary act of the Zemindar. It differs from other under-tenures in this, that the holder thereof, in consideration of a bonus, acquires a rent fixed in perpetuity, and every right which is inherent in the Zemindar. The tenure can descend by inheritance, or be transferred by private sale, and the Talookdar has the privilege of creating similar estates under himself, subject always to his own liability for the rent fixed by the Zemindar. These inherent rights can be devolved on Putni Talookdars of the third or fourth degree, and the Putnidar becomes the regular rent collector to whom the Ryots may look for all matters relative to their own engagements, and the Government for information when any practical emergency arises. But as a set off to these advantages, the Zemindar having alienated his Zemindarry rights to the Putnidar, stands to the latter somewhat in the relation in which the Government stood to the Zemindar himself. In other words, as the Government can advertise and put up to sale the estates of defaulting Zemindars at four periods in the year, so can the Zemindar advertise and sell the tenures of defaulting Putnidars twice within the twelvemonth. The sales are conducted under similar forms and with the same pre-emptoriness as those for the dues of Government: and all subsequent incumbrances created under the Putnidar of the first degree are avoided, unless such under-tenants choose to stay the sale by depositing the arrears. Practically, however, actual sales are few in number, and they are liable to be set aside by the tedious process of a regular Civil Suit. Only one sale took place in the year 1858, out of some scores of suits instituted, as the mere notice of auction had the effect of compelling payment. Many Europeans hold lands as Putnidars of the first degree, in the district of which we are treating, and it is obvious that if this tenure can be surrounded with adequate securities, it may become, for all practical purposes, quite as safe an investment as a Zemindarry itself. As regards facility of acquirement it is much easier to acquire a profitable Putni than a large estate. A Zemindar will not part absolutely with his estate by private conveyance, and will take tolerably good care that it shall not be put up to sale for arrears, but he will have no objection, on receiving a round sum of money, to create a subordinate estate and delegate his entire privileges to another. Here then is the facility for investment:

what is required is, protection for the man who has paid his money, against the inexorable punctuality of the Government sale for arrears. As it is, the Putnidar has a definite existence. A special law defines his position, records his liabilities, points out his danger, provides his safeguard, and proclaims his rights. But the law does not raise him above that indefinite dread of eventual extinction by the default of the Zemindar, under which, as long as it lasts, no generous outlay, no permanent improvements, can well be expected. If the Putnidar acquires the rights of and succeeds to, the position of the Zemindar in connection with the land and its occupants, he ought to be placed in a similar position with regard to the Government; that is, he ought to be held responsible *for no default but his own*. Everything that can be said on this subject with regard to Putnidars, applies equally to all under-tenures of every other description, in behalf of which no such special legislation has been framed. A few of these creations are protected by the sale law, and the sale law itself, as we have shown, very rarely comes into play. But where there is the way, it may be discovered by the corrupt will. An under-tenant, let his rights or denomination be what they may, (and it is usually something terminating in *dar*,) may be the most important man in the whole of one or two villages. His existence, though not formally recognised in our revenue code, is perpetually alluded to in a long series of enactments. The Courts may teem with cases in which his rights are constantly attacked or assailed, and a great deal of the local law literature may be tinged by his claims. If a tank is to be dug, or a market established, or a road laid down, or a swamp to be drained, it may be that little can be done till his co-operation has been ensured. If crime is to be concealed and offenders are to escape with impunity, his word may shut the mouths of the population against the enquiries of the most energetic detective: if the estate changes proprietors by private conveyance, it is as he wills it, whether matters go smoothly or the reverse. We admit freely that in spite of the legal right of avoiding almost all encumbrances acquired by a purchaser at public auction, it is not so easy to eject or to annihilate one of these strong middlemen. The same stubbornness that confronts an auction purchaser, may equally oppose a purchaser by private sale, who comes in on a less advantageous footing. But if land does change hands and if puttuni Talooks are created, or estates are farmed out with profit both to grantor and grantee, as daily happens, why should we wish, under any circumstances whatever, that flourishing under-tenures should be rendered null and void? Why should it be good policy to annihilate by law such creations in one case, and to let them take their chance and maintain themselves as best

they can in another? Why invite purchasers to the Collector's sale room by holding out a special inducement, when, without such special inducement, land is daily mortgaged and transferred in the private Cutcherry? The law for the protection of all *bonâ fide* under-tenures, after registry and on summary enquiry, like most other necessary laws, has been delayed from clamour, from timidity, and from the pressure of untoward circumstances. On the one side is the welfare of an increasing class of the native community, the frequent investment of moderate capital, and the wants of our real middle classes: on the other the increased selfishness and the alarmed cupidity of a few Baboos, who have got up a ridiculous cry about danger to their own vested rights, and insecurity to the Revenue. The issue of the contest, we trust, is at hand. The European speculator, warned by the danger of asking for too much, will gracefully accept whatever may be tendered to him by an amended Bill. The timid Official may rest assured that by the insertion of a judicious clause or two, not one anna of the just dues of Government will be endangered, and the Baboos may write their pens down to the very stumps in vain.

A few words may here be not out of place regarding summary suits. Taking one district with another they average rather more than a thousand a year in each district of the Lower Provinces. In some Zillahs the number falls to 200: in one it rises to eight or nine thousand. A complete knowledge of the various motives with which nearly fifty thousand of these cases are yearly instituted, would give a curious revelation of the ways of Ryots, Agents, and Zemindars. Some men sue because their rents are unfairly withheld by the parties who ought to pay them: some are sued because they will not pay without an injunction from the Revenue Courts, and because a mere receipt given by a Naib or Gomastah can at any time be repudiated by the giver, whereas a decree signed by the Collector is good against the world: some men sue furtively and without duly serving the notices in order that they may come down on the luckless defaulter, who has shewn himself to be an 'obstructive' in the village, and so may put up his tenure for sale: and some carry on a long series of collusive actions with shadowy parties, who either confess judgment or allow it to go by default, with the sole purpose of acquiring documents which may substantiate a claim to real property, which after due preparation of deeds and diligent tutoring of witnesses, is about to be urged in the regular Civil Courts. But, for all this, the summary suit is a necessary part of our Revenue Code, and it will be just as necessary whenever all Ben-

* The above was written before the passing of the Bill, on which we congratulate the Government, and the community.

gal shall have been sold. The men who are held to pay revenue under compulsion or who merely want their own dues, must have the means of realizing their rents. No rights are adjudicated on by the Collector. A year's time, and not the preposterous limit of twelve years as in many other cases, is allowed to a discontented sufferer or to an intervener to establish his position by a regular law suit, if such have been prejudiced by a summary decree. Occasional instances of unjust or vexatious attachments occur all over the country : and the cattle of Gopal are summarily sold for prices below their value, or the tenure of Faizoo vanishes from before his eyes, but this, till Bengali nature change, will be unavoidable under any series of laws which the wit of the statesman, or the earnestness of the philanthropist, shall be enabled to devise. In such an age and country there will be oppression, outside the Courts, by violence and rapine, inside them by all the means which unscrupulous ingenuity can bring to pervert the Law. We may reduce the chances of success in favour of fraud and perjury, but we shall no more extinguish this class of crimes than all the Peelers have been able to extinguish or put down the practice of picking pockets on the Derby day, or in a large London crowd.

It is impossible to discuss revenue questions satisfactorily without endeavouring to ascertain in some measure the definite position of Zemindars and Ryots with regard to ownership in the soil. Various conflicting and irreconcilable theories have been held on this head, and it must be admitted that more than one party appears to have co-existing rights in one and the same thing. We shall now try and define how far the rights of ownership of any person can be said to be marked out in broad and distinct lines either by practice or law.

We take, first, the Zemindar ; that is the person who has entered into a separate engagement to pay a specific sum on a distinct portion of land. At first sight it would seem that this individual were possessed of rights vesting him, like a squire, with the real ownership of the soil. He has the right to rent derivable not only from the ordinary occupations of agriculturists over the cultivated area of his estate, but to all additions in the shape of *jalkar*, *bankar*, *Phalkar* and *Talkar* : that is to fish from the marsh, wood from the jungle, fruits from the garden, and droppings from the trees, or waifs and strays in general. He has the enjoyment of all the rents of profitable Hauts or open markets, and of Bazaars, and the privilege of establishing new ones, to his own advantage and to the detriment of his rival. He asks the permission of no party if he desires to transfer his rights, and he expects that those subordinate to him shall require his permission or concurrence before they transfer their own. All the

above rights and privileges are recognised not only by the statute law, but by the common law and custom of the country as expressed in mortgages, sales, leases, agreement and the like. Not a lease is given by him without a stipulation that the lessee shall maintain the boundaries, shall make no excuses on account of drought or inundation, deaths or absconding, and shall not cut down the trees. If a railway station is to be established, or a road opened in a new tract of country, the permission of the Zemindar must be secured privately, or obtained by legal method. If a tank is to be dug, at which the inhabitants of four villages shall draw water, he may lawfully put in his objection because so much area of cultivated land as shall be swallowed up in the reservoir, tends to deprive him of so much of his rent. All these acknowledged rights are enhanced by the influence which his position has conferred. The legislation looks to him by express declaration, for the postal service on all cross lines in the district, for the detection of the crimes by which he occasionally benefits, and for the aid of the executive which he constantly opposes, for the prevention of the cultivation of the poppy or of the illicit manufacture of salt, and as ruled by the Highest Court in the country, for the nomination, at his pleasure, of the village watch. If these last provisions impose certain duties, they also bring with them an increase of influence and weight in the country. The position is naturally improved by the talents of the occupant, and he rises or sinks in proportion as he attends to his Zemindarry management. Under an energetic Zemindar the lands are carefully measured perhaps a dozen times in the course of a generation, and no excess can escape detection: if a lease or incumbrance is created on the estate, a considerable bonus is first paid down to him: not a Ryot will grow a beegah of indigo without the permission of the magnate: not a domestic feast at the 'big house' is celebrated, neither the marriage of the son, nor the weaning of the first child, without the levy of benevolences: to few lawsuits or fines do the tenants not contribute their quotas: and few local events of any importance are ever withheld from the knowledge of the working Zemindar. Take these rights to collect and to assess rents, to measure lands, to dispose of them in part or entirety, to provide places where the necessities and even luxuries of life shall be collected and exposed for sale: take, we say, the obligations to maintain the laws and to assist the authorities which can be enforced by penalties, and add to them the influence which arises from increasing wealth, from knowledge of legal high roads and bye-paths, and from the power to maintain a host of dependants and retainers: take all this, and what more is wanting to constitute that absolute ownership in estates which we are all so familiar with in the squirearchy

of Great Britain, or which we have read of in the nobles of the Russian Empire ?

On the other hand, any such unqualified and absolute ownership in everything is not to be found in any statute law. On the contrary, the language of the Regulations from 1793 downwards expressly speaks of rights or ownership in land as inherent in other parties, and of Zemindarry rights, however defined and to be respected, as not incompatible with other claims to ownership in the soil. There is express mention of the *khamar*, *nijjote*, or *nankar* lands, which are termed 'private lands,' and which are evidently distinct from those where the ownership is *ownership in the mere rent*. We hold that though, by the wording of the Regulations of 1793, the property in the soil was held to be vested in the landholders, the language of the Code did not and could not annihilate the rights of others: nor create a proprietorship or a permanence in any rights other than those enjoyed by the Zemindars previous to that settlement. The Collectors of revenue and receivers of rent, from being temporary, became proprietors of rent in permanence, like hereditary State Pensioners and nothing more.

Nor is this language, distasteful as it may be to some parties, at all at variance with that established custom which is independent of written enactment, and stronger than codes. A wide and well-known distinction exists between land held *Ryotti*, and land held *nijjote* or *khas khamar*. The latter is land which must be cultivated by hired labour or by those who are paid by one-half of the crop. It is on this land that a small proportion of our indigo is cultivated, and that the gardens which enclose a paternal residence are not unfrequently laid out. If a jumma is to be converted into private property, it must be *regularly sold and bought*. If ground is required for a new Haut, even in the very centre of a large Zemindarry belonging to a powerful Baboo, it can only be procured by either acquirement of the tenure or by taking a lease. No Zemindar, even in the wildest dreams of absolute power, ever deliberately holds that he can plant or build, erect or destroy, on any plot of ground which may take his fancy. No villagers, however abject, ever practically consent to such an abnegation of their rights. Examples of forcible dispossession, constantly cited, support our view, for they rest on illegality and brute force. Then as regards the lien held by the Zemindar on trees and gardens, or as to his consent before a road can be laid down or a tank dug, such provisos depend really on his indefeasible rights to rent. As one who engages for the revenue due to Government, he is most properly considered entitled to everything that furnishes or enhances rent, and no act by which rent may be lessened or imperilled can be permitted

without his consent. If timber is recklessly felled, and the Ryot immediately afterwards dies or deserts, the land is, obviously, less valuable in the eyes of the next tenant: if a certain area is withdrawn from cultivation for public purposes or social convenience, the rent due on that area must be given up. It is in this view, as we hold it, that stipulations in favour of such rights run through the whole of the documents under which land is everywhere held or exchanged. The right to rent is extensive, absolute, indefeasible: the right to the soil is not inherent in the Zemindar's title or position, is not so sanctioned by law, nor so grounded in practice, and either resides in other parties who can be identified, or must devolve on the Zemindar; whenever it does devolve on him, by an entirely distinct process.

In order to support this view we shall consider the position of those men who are admitted by many theorists to have permanent rights in the soil, which neglect cannot obliterate nor cupidity absorb. Whatever denominations such tenant proprietors may bear in various parts of the country, seem to us wholly immaterial. The tenure may be *mourusi* or *mokurrari*, *khoddkhast* or *kadimi*, *jummai* or *nijjote* or *gantidari*, or anything else in the endless repository of revenue terms. It matters little whether the land so held be ten beegahs in extent or fifty, or one-half of a village, nor what precise distinctions may characterise such independent tenures in Bengal or in Behar. If we can light upon men who hold lands at fixed and permanent rates, either under pottas of 60 or 70 years old, or under immemorial prescription, which lands they can sell, sublet, devise, or mortgage and on which they can plant and build, it is in such men that we ought to look for distinct evidence of something like ownership in the soil. Some men of considerable experience have been led astray into imagining that they discovered a new kind of tenure because it is presented to them under a new name. In a very able report on the Railway, No. IV. of the selections of the Bengal Government compiled by one of the most practised Revenue officers, who however has given the Indian world ample proof that the study of Land Revenue does not make a financier, we find that a certain tenure termed *Koorfa* is "confined to this part of Bengal and chiefly to the neighbourhood of Howrah, and Sulkeah and Serampore." The tenure is clearly and fully described in pages 28 and 29 of the number indicated, but as for its being confined to the line of railway or to the right bank of the Hooghly, we have only to say that we have met with this very tenure, sometimes under the same name, but oftener by a totally distinct one, in hundreds of instances, in two or three districts in the East of Bengal, absolutely identical, in every respect, down to the minutest characteristic, with the tenure said to be limited to Hooghly and

Howrah. The real fact is, that all over India, there are certain rights of tenancy, enjoyment, and virtual proprietorship, which a close inspection will recognise as the same in Oude, in the Doab, and in Lower Bengal, however they may be modified by local peculiarities, or distorted in provincial phraseology, or elevated to the dignity of a new and unheard of tenure by the wearisome ingenuity of a crack Collector, an individual sometimes as great a nuisance now, as he was when Shore compiled his 'Notes.'

Ownership in the soil means, to our thinking, that you are able to deal with the earth as you think fit. We contend that the Zemindar's lien on the soil is only precautionary, and for the preservation of his rights to rent. Unless he holds private lands which he cultivates by his hired or domestic servants, his connection with the earth itself is absolutely nothing. He is never called on for landlord's repairs. No rows of neat cottages rise at his cost. With the succession of crops, the direction of agricultural operations, the extension of date cultivation, or the laying out of other gardens, he has, as Zemindar, nothing to do. If he establishes a factory, he must take a lease for the land on which it is erected from a man who perhaps is not worth 20 Rupees: and if he cultivates indigo, he must do so on his own private lands or get the Ryots, just on the planter does, to take his advances, and to grow the plant on their own.

Again, the position of a respectable resident villager with a jumma is linked to those responsibilities and advantages which we have seen do not belong to the Zemindar. Such a resident erects and repairs his own dwelling, cuts his own bamboos, makes or mends his own fences, cleans out his own private tank, enlarges his date gardens, and establishes cultivators on parts of his tenure, who without being mere tenants at will and not being liable to ejection as long as they pay their rent, are still very far removed from the acquirement of any right but that of occupancy, at a fixed rate, for a certain time of years. That there are thousands of such small proprietors or tenant proprietors all over Bengal, is undeniable, and though they have lost all the characteristics of a village community, if they ever possessed any, and though neither a beneficent legislature nor a vigilant executive has surrounded them with those safeguards, which, in Hindostan, without a mutiny, might perhaps have lasted a century, it is not the less to them that we must look for those distinct, positive, and practical acts by which reasonable men are content to recognise an ownership in the soil. Such an ownership is not paramount nor exclusive; it is not incompatible with the exercise of large privileges on the part of the Zemindar: it admits of other liens co-existent in other independent parties: but it comes as near to a tangible proprietorship in

visible objects as perhaps we have any reason to expect in such a country of conflicting interests and of ill-distinguished claims.

That the land was not the King's in ancient Egypt which resembled ancient India, but the tenant proprietors, we know from Holy Writ. Amongst other statesman-like projects of Joseph, when ruler of the Delta, we read that he bought "all the land of Egypt for Pharaoh." That is to say, he acquired by purchase for the sovereign, all the proprietary right in the lands. What Joseph did on a wide scale for a kingdom, is, now practised according to his opportunities and abilities, by every Bengali Zemindar. Every rich and influential person purchases a *jumma*, or buys up the land whenever he can. Generally the purchase is made in the name of a dependant under our detestable system of Secret Trusts. Sometimes the *jumma* is situated in the purchaser's own Zemindarry, and sometimes in that of an adversary or rival. The object in any case is to give the purchasing party a firmer and more advantageous footing.

It seems to us absurd, after this, to hold that the Zemindarry right conveys everything in absolute proprietorship, or to suppose that rich Zemindars would voluntarily descend two or three steps, incur certain expense and probable litigation, were they not convinced that more was requisite to the consolidation of their power, and that the acquirement of a *Jumma* or tenant right in the soil did convey a *something* which neither the Perpetual Settlement, nor the entry in the collectorate *Towjil*, nor the ample resources of a Zemindarry, had yet been found to convey. A squire in England does not think it worth his while to purchase the status or rights of a yeoman, unless he want a political vote. A Zemindar of Lord Cornwallis, with all his power, does think it worth his while to obtain a *jumma* because it places him in contiguity with the soil.

There are, in fact, as it appears to us, three or more rights connected with the land. The Government, *pace* Lord Harris, has an immemorial right to tax the land, without exercising proprietorship, as it might tax tobacco or silk to-morrow. The Zemindar's claim is paramount over everything in the shape of rent, and extends to whatever facilitates or imperils its income and to all products from which rent is derived. But if there is ownership in the earth or its products, it is to be sought for in those men, by whatever denomination they may be designated, who reside on, cultivate, and sublet a moderate tenure, and deal with it as they choose. This ownership however subordinate to other claims or weakened by neglect, or qualified by custom, or circumstances, or borne down by the domination of a powerful class, is yet a virtual and tangible fact. Anything more definite we have been unable to discover. But we think it would take a

good deal of reasoning to make out anything more, definite in the shape of absolute ownership, either on the part of Government or on that of the Zemindar.

Whether the benevolent author of the Perpetual Settlement had any very distinct idea of the exact position of a Bengal Zemindar towards the soil and its cultivators, may by some be doubted. It is possible, however, that making allowances for a few differences in habits, he did hope that an Indian landholder would diffuse similar benefits over his estates to those which have been so freely imparted by a resident gentry in England, between whom and the peasantry there exists a traditionary and firm bond of union. We think that a residence of some years in this country may have possessed Lord Cornwallis with some knowledge of the real position of Zemindars here, and may have prevented his entertaining those ludicrous conceptions of Eastern squirearchy which many members of both Houses of Parliament, as shown in the late debates on Outde, have entertained to this day. Possibly his ideas and those of his colleagues regarding a model Zemindar, whom the settlement was to develop, may have assumed some such shape as this. He hoped, we say, that one day some experienced and large-minded Commissioner might write as follows :—

“ Baboo Ishwar Chandra Banerji, a high caste Brahmin, whose great grandfather held lucrative offices in the days of Warren Hastings, is the owner of three profitable Zemindarries in the Pergunnah of Nirick-ba-hal. His residence is a comfortable pukka mansion in the centre of his principal Talook of Dhurnpore, on which he resides with his family, for the greater portion of the year. The surrounding village is held mainly by him as a home farm and cultivated by his hired servants. The rest of his property is in the hands of resident Ryots, or respectable middlemen, with *Mucurrari* or *Mourusi* leases created by his grandfather and rigidly respected by himself. The management of his home farm has afforded him signal advantages for the introduction of two or three new kinds of produce : and by his practical example he has induced many Ryots to manure their lands, to thin out their over-luxuriant gardens, and to weed their fields during fallow time. He has also in correspondence with the Agricultural Society of which he is an associate, devised some means for checking the ravages of blight and insects, and has materially improved the breed of cattle in the vicinity by the introduction of better stock. In 1855 he cut a deep watercourse, in concert with some of the larger tenant proprietors, which had the effect of draining the Hanspookria jheel and reclaiming some 500 acres for the plough, which he let out at moderate rates ; and in 1858, the year of great scarcity, he generously remitted one-fourth and even one-third of the rents of his poorer Ryots. The collection of his rents is entrusted to the hands of respectable natives, mainly Hindus, and his arrangements for the grant of *Dakhilas* or quittances are so admirably contrived that it is very rarely that either fraud on the part of the rentpayers or imposition on the part of his local agents can escape detection. Only last year he discharged a Naib who asked for *Salami* all round the village at the Pooja time, and who was keenly suspected of fabricating leases and agreements to his own special advantage. As, however, his principle is only to help those who

will help themselves and to make the Ryots contribute their share to every useful work, he insists on the payment of a moderate cess from each substantial Ryot to be strictly devoted to his village road-fund, to the excavation of tanks, and to the establishment of his new Dispensary and of Vernacular schools. It is admitted, however, that he found much difficulty in this at first than his neighbour, the well known Mazbut-Al-Huk did, when he levied a round fine all through his estates to cover the expenses of a very serious and expensive affray, terminating in a sessions case, but by a little explanation and management everything was satisfactorily arranged. He has entirely succeeded in extirpating a nest of dacoits and burglars, who huddled together in one corner of his estates, and after carrying a series of summary suits through one quarter of a recalcitrant village of *latials*, he has now no further trouble with his collections. His litigation has been chiefly confined to a few boundary disputes, augmented partly by the injudicious and irregular proceedings of the Survey department, and to some suits for the establishment of his rights when endangered by unjust assumption or encroachment. The rent-free holders in his estates remain quite unmolested. He spends some hours of nearly every day in his Cutcherry, and is the arbiter of all disputes amongst his Ryots relative to caste, marriage, abuse, and assault; levying small fines proportionate to the harm done, which are usually at once paid over to the injured party. He has a moderate acquaintance with English, but writes and reads Bengali and Persian, and he was one of the foremost to get up the petition for the late Hindu marriage act, though he maintains his orthodoxy in other respects, and is liberal to Brahmins, Pundits, and the deserving poor."

Will any candid person assert that such expectations were extravagant? And can any person, really acquainted with the interior of the country, conscientiously say that the above is a correct picture of any living Zemindar in any half dozen Zillahs? Or will not the same well-informed and judicious person be ready to fit the subjoined description to a score of different Zemindars within his own personal knowledge?

"Munshi Yama Prasad retains the title prefixed to his name because his great-great-uncle was Munshi in the family of the predecessor of the present Raja. It is shrewdly suspected that during his incumbency the said ancestor found means to enrich himself at the expense of his employer, inasmuch as this family four or five generations back had only a few beehives of land: but what is quite certain is, that by some means or other the present incumbent has succeeded to the possession of very considerable estates. In the management of these estates he displays an undoubted ability of a certain kind. Not that he is in the habit of visiting his villages in person, but he holds office daily and has reports regularly submitted to him of all his collections of rent and of the progress of disputes out of, and of cases in, Court. He is rigorously punctual in the exaction of his dues, and though immersed in litigation, has divers ways of recruiting an impoverished exchequer. Whenever a remarkable event takes place in his family, or when a law suit is lost, or a heavy fine inflicted, or a benevolent individual digs a tank or builds a bridge in his neighbourhood, the occasion is wonderfully improved for the exaction of a *Nuzzur*. The sum taken in this way both by the Zemindar and by his subordinates all through the year amounts to about 4 annas in the Rupee of rent. At the same time it is to be admitted that Yama Prasad has set up two or three very profitable Bazaars, Hauts, and Gunges in his Pergunnah of Zabar-o-zer, to the utter dis-

comfiture of the proprietors of several old established markets who have been irretrievably ruined by the contest. To these new Bazaars the purchasers were only attracted by the presence of a number of *lattice* who seized on passers by and bore them off in triumph, and it was not until a house or two had been plundered, and two or three individuals had been reported as missing for the better part of a year, that the rival or recusant villagers abandoned the field. An uniform process of exaction goes on at these Hauts with the cognizance and authority of the Zemindar. There is something to be paid to the Naib, something to the inspector of Ghats, and something to a kind of rustic ædile whose functions it is to look after the weights and measurements. Still, for all this, the Bazaar is much frequented. The situation is admirably chosen. The shops are large and well supplied. Purchases are made more cheaply there than at Bazaars of smaller proportions. The Zemindar is a great hand at leasing, subletting, and the like, invariably driving a profitable bargain, but even his opponents or constituents, the Planters amongst others, admit that when he has once made a bargain, he sticks to it. Amongst the other parts of his character must not be omitted his occasional munificence. He has never given up one anna of his rent in any bad season, but he has been known to spend as much as a lakh of Rupees at a *Sradddha*, the greater part of which went into the pockets of sleek Brahmins and respectable men from neighbouring districts. And he has taken care to be mightily civil to the Editor of a well known vernacular paper. He has a capital eye for the telling points in a law suit, and battles doubtful and uncertain claims with all the ingenuity and perseverance which his long training supplies. He does not harbour dacoits, for that annoys respectable people and alarms his good tenants, but he has fought his way into complete possession of two or three villages where he had no rights whatever, by two affrays, a dozen minor affairs, some hundreds of petitions in every imaginable Court in the country, and the employment of professional clubmen in numbers from 'down easters' and 'brown foresters,' to Brajbashis and men from Oude. His manners are rather prepossessing: his language and address good: and to listen to him, you would take him to be an energetic landholder in the midst of an adverse population of obstructive middlemen, and of impracticable Europeans, doing nothing beyond battling in fair play for his rights. As to any relinquishment of rents to Ryots, who would only make a bad use of it, or to any improvement of agriculture by direct supervision, or to any more intimate personal knowledge of the Mofussil than what is subservient to his own aggrandizement, or as to any genial intercourse with his tenantry, such as we see in England and might have seen in the North West in a less degree, it is not conceivable that such ideas ever entered his head. He once shut up a *khal*, at some expense, though it was said that his object was as much to drown his neighbour's lands as to preserve his own; he has established one good school on his estates, as a concession to the spirit of the age, and last year, at the personal solicitation of the Magistrate, he gave 500 Rs. to the new Dispensary. On the whole he is a fair specimen, not of advanced enlightenment nor of profligate debauchery, but of the clever, cool, calculating, pertinacious and grasping spirit of Bengali nature, which rapidly discerns its own ends, and has few scruples about the means necessary for their attainment."

Of course all the above may be termed highly democratic and revolutionary. But no one will accuse us of wishing to undermine the Perpetual Settlement when we assert that, for all the evils which it may have retained or generated, and for all the good which it may have left undone, we have no wish, for a mo-

ment, to advocate any other system for the Lower Provinces. We have seen the rottenness of the Village System thoroughly exposed. We have not the faintest suspicion that the panacea for Bengal would be a direct settlement with a population of tenant proprietors. We are as ready to admit, as any member of the Bengal landholder's association can be, the sterling advantages which have emanated from the great measure of 1793: the light taxation, the accumulation of capital, the rapid spread of agriculture, the extension of commerce, the creation and conservice of a dozen interests in the land, independent of, but perfectly compatible with those of the Zemindar. But against the class interests and the selfishness cloaked under the guise of patriotism to which the Mutinies have given rise, we think it imperative to offer our decided protest, and when we have a body of wealthy men clamorous against any measure which shall reinstate the Ryot in the position which he ought never to have lost, and when we find their avowed organ coolly talking about the "uses of latifundism" as a domestic institution, and suggesting, with characteristic effrontery, that the remedy for Bengal is to withdraw the police altogether and hand the country over to the mercies of the Zemindars, we think it necessary to warn men, both here and at home, against that skin-deep civilisation, which imposes on us by language inflated indeed, though not unbecoming men if bred up in the atmosphere of liberty and constitutional privileges, but which, in reality, would enforce the maxims of Machiavel by the clubs and pikes of Captain Rock.

We now come to the last part of our subject, the proposal to convert Bengal Zemindaries into rent-free lands. This plan which hitherto has found comparatively few advocates, may be considered as regards the extent to which it will be adopted, and as to the effect which it may produce on other landed interests generally. As regards the first point we freely admit that Hindoo and Mahomedan have an insatiable longing to acquire a rent-free holding, however minute. The Legislature has already ratified the voice of the native public in this respect by declaring that, in estimating the value of property in litigation, lands which pay rent shall be valued at only three times the Sudder Jumma, while lands which are rent-free shall be valued at eighteen times the annual rent. This desire is so natural as to need little remark. When then it is proclaimed by Government that Zemindars who desire it, may have the option of redeeming their lands, will there not be a rush of redemptors to every village in Lower Bengal? The answer to this appears to me to be, that much will depend on the number of years' purchase which may be fixed, and that the small estates will most naturally be the first to be redeemed. We should hope that no

lands will be sold outright for less than 30 years' purchase, and that the proceeds of the sale will be forthwith applied to the part extinction of the public debt. Much also will depend on the power of individuals to pay down a good sum, and it strikes us that persons engaged in trade, service, or speculation, and possessing small talooks of half a village, or of one, two, or three villages in extent, will be the most likely persons to avail themselves of the boon. Men, whose *duties* require them to be absent in other districts or in Calcutta, and who must leave the payment of the revenue to crafty shareholders, or cunning agents, will at once recognise the advantage of terminating all doubts and anxieties. Our list has shown a vast proportion of the estates to be paying less than one hundred Rupees a year. A successful venture in timber or rice, in silk or indigo, a first rate date season, the pickings of a lucrative appointment under Planter, Zemindar, or Government, or the mere legitimate savings of honourable office, may place an absentee Talookdar in a position to defy the vicissitudes of climate, the combinations of Ryots, and the rascalities of Naibs and Mooktars. For 2,000 Rupees or so his portion may be freed for ever. Whether aged talookdars will like to hamper themselves for the sake of their posterity, or whether, where an estate is held jointly in many shares, it will be an easy matter for the shareholders to agree amongst themselves, is another question. But we should think that all independent small Talookdars, in easy circumstances, will strain every nerve to acquire a rent-free title, and that great Zemindars will at least redeem the few score or hundred beegahs which surround their family residence. Possibly, half a century may elapse before the revenue of Bengal can be materially affected by the proposal, and we think it tolerably clear that it will be some time before a Zemindar, with a large rent-roll which he manages to get through every year, will be enabled to redeem the estate almost co-extensive with an extensive Pergunnah, which was merely a small part of a prosperous chukla, which was formerly included in a well known Sircar in the good old days of the Nawabs of Moorshedabad and Dacca.

With regard to other changes which the redemption of lands may produce, sundry erroneous impressions appear to us to have gained ground. It has been assumed that litigation will sensibly decrease, that rents will be got in on redeemed lands without any difficulty, and that there will be no such things as contests for boundaries or squabbles concerning under-tenures. It has also been surmised that small tenants may redeem their own holdings and thus inundate Bengal with a breed of petty proprietors; the very last men in the world to expend capital on improvements. Now, admitting that the rate of rent paid by

cultivators of lands held rent-free by proprietors at this moment, is somewhat lower than the rent of Zemindarry lands, we do not think it probable that because a Talookdar has freed himself from the payment of revenue, he will consequently lower the rents of his Ryots. We may depend on it that in nineteen cases out of twenty, he will exact them as punctually as ever. There will certainly be wanting the pressure from above and the fear of losing his estate by sale, but what guarantee have we that seasons will be more favourable, crops more abundant, or Ryots more ready to pay than before? Do we never hear now of suits brought by rent-free holders, or attachments made, for the realisation of their dues? Again, incumbrances on the land, as we read the proposal, will not be avoided by redemption: existing rights must be carefully respected: nothing will vanish, except the Government demand. Nor is the proposal for redemption to be open to all parties, as we read it. There will be no race between Zemindar and Putnidar, Middleman or Ryot. An individual with 'vested rights' will not even have the chance of purchasing, which he now and then may have under the present sale law. The landholder will not be merely offered a right of *pre-emption*. He will be told, we take it, that it rests with himself to redeem the land tax, and with no one else. A substantial, resident, hereditary tenant proprietor, will obtain no hearing, unless his name can be entered, by conveyance or otherwise, on the books of the collectorate. We may cast aside all fear of an invasion of mere petty yeomen without either the power to accumulate, or the intelligence to expend, money. We shall still have to keep open our tribunals for the speedy adjustment of claims to rent, for summary redress to ejected individuals, for division, inheritance, re-entry, and the like. A man with a redeemed estate, may still, in defiance of Survey and Settlement, endeavour to make its area as large as he can. A Zemindar in difficulties or incapable of attention to business, may still find it convenient to give a planter or neighbour a seven years' lease of his *lakhiraj* lands. A new incumbrance may be actually created, in virtue of a bonus. Jheels and marshes will as hitherto be gradually covered with a fertilising deposit: the level of low land will rise: the abrasion of one *chur* and the accretion of another, will proceed as hitherto, the old causes of stock disputes will be as numerous as ever, and if lands acquire a new value, this, of itself, will give a new impulse to litigation. The wealthy Bengali will still find in law suits and stamped papers that source of excitement which men of colder climates seek for in field sports, in travelling, or in the arena of politics. We no more believe that the proposed sale of Bengal will create a revolution in the Collectorates, than we can believe that a proposal to alter

the mere forms of judicial adjuration can turn a Mofussil Catcherry into a Court worthy of the Republic of Plato.

That good will result from the proposed redemption we have little doubt. Uncertainty and dread may be removed from the minds of small Talookdars. As large Zemindarries become subdivided, there may be a chance for their eventual redemption. The value of lands actually redeemed will indefinitely increase. The attachment of rent-free proprietors to the British Government will acquire a depth and permanence, which may efface the recollection of past resumptions, and which neither rumours nor risings will ever effectually shake. Even if large capital be not immediately expended on local improvements, the springs of commerce, the sources of trade, the engines for speculation, will feel a new motive power. Men, with rent-free lands, will travel, will take service, with a quiet conscience. Men who have made money in honourable or lucrative employments, will end their career by the purchase of the great object of a native's ambition, a rent free estate.

Fully aware of the difficulty which surrounds important questions relative to rent, revenue, and landed interests, as well as of the divers theories which, at all stages of our Indian administration, have been broached concerning them, and very unwilling to lay down any dogma on a subject to which we have devoted considerable attention, we have endeavoured to discuss the position of different individuals, with reference to facts, customs, and Statute Law. A good discussion, in which all sides may be fairly represented, is our sole object. The prosperity of a great Empire, obviously, as much depends on the cohesion and permanence of agricultural interests, as on the extension of commerce and manufactures. The plough deserves as much consideration as the shuttle: rice and indigo are not second in importance to madapollams and to mule twist. This *Review*, whilst earnestly advocating the cause of the Ryot and the small proprietor, has never for a moment countenanced any proposal to subvert the Perpetual Settlement, nor do we wish to see an army of crack Collectors let loose on a lightly taxed district, to cancel engagements, to redress inequalities, and to knock off, dexterously, the heads of every poppy that towers above its fellows. The Cornwallis Settlement, with all its omissions, has laid the foundations of social prosperity with greater depth and solidity than any other mode by which the land tax of India, as yet, is gathered in for the State. Allowances may even be made for the temptations incident to the faulty education and the position of the Zemindar of Bengal. But he should act more and talk less. We are ready to concede, however, that even lip loyalty, in the late Mutinies, was worth a regiment or two: that no one serious-

ly expected Bengalees personally to recruit our irregular levies, and that while everywhere the mutinous and the disaffected met with no countenance or support from the native gentry, in several instances, the Government actually derived from the same parties abundance of carriage and supplies.

In a future number we may perhaps give some further details as to the field agriculture and the garden cultivation of those persons whom we have endeavoured to indicate as the actual owners of the soil. Classical readers will readily recall a graceful passage in the most exquisitely finished poem which antiquity has handed down to us, where the didactic poet calls up a contented old man, who had turned a sterile spot into a thriving garden, covered it with herbs and flowers, colonised it with the murmuring bees, and lived on its unbought produce, as proud and as happy as a King. We fear that in spite of fertile soil, favouring seasons, and benevolent Governments, it may be some time before a native pastoral poet shall present us with a similar picture of a Bengali small proprietor, though the Lower Ganges may show crops which surpass the cultivation of Tarentum, and rivers which roll on a flood far more fertilising than the clear and deep, though dark, waters of the Galæsus. But we do not despair of the future of Bengal. We may leave untouched every positive right or every lawful privilege which the Zemindars can claim, and by means of railroads, schools, accessible functionaries, strict laws, and cheaper Courts, cause commerce and agriculture to go hand in hand in advancement, and we may cover our huge plains with a race of wealthy landlords and an improving tenantry, without setting labour against privilege, poverty against ownership, and each class in native society against its immediate superior.

ART. IV.—*Sabda Kalpadrum*. BY RAJAH RADHAKANT BAHADUR. Vol. V. Article, Caste. Calcutta. 1766.

"HAVING incidentally mentioned the barber, in a comparison of professional temperaments, I hope no other trade will take offence, or look upon it as an incivility done to them, if I say, that in courtesy, humanity, and all the conversational and social graces which "gladden life," I esteem no profession comparable to his. Indeed so great is the good-will which I bear to this useful and agreeable body of men, that, residing in one of the Inns of Court (where the best specimens of them are to be found, except perhaps at the Universities) there are seven of them to whom I am personally known, and who never pass me without the compliment of the hat on either side." So said the witty Charles Lamb of the English barber, and so say we of his brother of the craft in Bengal. And indeed "so great is the good-will which we bear to this useful and agreeable body of men," that we have deemed it but just and proper to devote one whole Article to the delineation of their manifold virtues.

Our readers will have no difficulty in recognizing a Bengali barber. In the Mofussil any person that is the owner of a merry face, and has, at the same time, a small bag under his arm, may be taken for one. In the "City of Palaces," his accompaniments are more marked. Besides the bag containing the implements of his humble but useful trade, the metropolitan barber has a turban covering his head, which circumstance at once places him on a level with the members of native *Keranidom*. He has, moreover, a few of his sharp-pointed utensils located in the regions bordering his auditory canal. It is proper, however, to observe that every barber of Calcutta is not dignified with a turban. That graceful appendage is worn only by the thriving members of the fraternity. But whether turbanned or not, he has a merry heart. From the time that he squats down on the floor on all-fours, opens his bag and sharpens his tools, to the moment when Joseph Rodgers and Sons give their finishing touch, how delightfully do the minutes glide away! What stores of curious information! What spicy anecdotes rarely told! What peals of care-destroying laughter! What delicious gossip!

All Bengali barbers are said to be descended from *Hárodás*. The birth of this primitive barber, the father of all such as handle the razor and the strop, is enveloped in the mists of mythology. Mahádevá, the third person of the Hindu Triad, and the originator of all the arts and sciences, produced the first barber of the world from the garland of bones which encircled his divine neck. Hence the name *Hárodás*, or the servant that

is created from bones. The Bengali barber is an influential member of the Hindu community. In the pyramid of caste he occupies a higher position than the millionaire *Mulliks* of Calcutta. He belongs to the social section usually termed *Naba-Sákhás*—a section inferior only to Brahmanas and Kayastas; while the *Mulliks* occupy a position considerably below, indeed very near the base of the social edifice. A Brahman of the right orthodox stamp drinks a cup of water offered him by a barber, while he turns away with disgust from water polluted by the touch of a *Mullik*. Brahmanas and Kayastas smoke freely in the company of a barber, while they empty their *hookahs* of water if a *Mullik* happens to touch the mat on which they are seated. A *Mullik* is not dignified enough to have the privilege of serving a Brahman, while a barber's services are thankfully accepted.

Not unlike Brahmanas, barbers in Bengal are arranged under two great classes, *Bárendra* and *Rárhí*. The *Bárendra* barbers inhabit chiefly the district of Rájshaye and other places lying on the North and East of the Ganges; while the *Rárhí* barbers dwell in the regions to the West of the same sacred river. It is superfluous to remark that there exists no social intercourse between these two classes of barbers. Though both the classes are descended from *Hárodás*, they trace their immediate ancestry to two of his sons who, leaving their paternal thatch, took up their abode and scattered the blessings of the *Kouriahotic* art in benighted *Bárendra* and rude *Rárhí*. A *Bárendra* barber may not partake of the "pipe of peace" of his *Rárhí* brother; a *Rárhí* barber never takes the hand of a *Bárendra* bride. Nor is the element of *Kulinism* wanting in the ranks of the barbers. Though forbidden to be polygamous, a privilege confined to the sacerdotal class only, a Kulin barber, dignified with the appellation of a *Prámánik* properly so called, has his peculiar privileges. When he graciously condescends to get married to a girl of an inferior rank, a bribe is offered him. At a feast he occupies the highest seat, and has the largest quantity of its delectables. He exalts, he degrades, whomsoever he chooses. He excommunicates a refractory barber from the rights and privileges of the trade; he hugs to his bosom the offending brother when penitènt. His presence gives validity to a marriage contract, and imparts solemnity to a funeral service. He is the patriarch of the fraternity to which he belongs.

Hindu confectioners or *madaks* are often represented to be a sort of barbers, as they pass under the name of *madhu-nápitás* or honey-barbers. They are called honey-barbers because, though as confectioners they have to deal with all sorts of sweet things of which honey may be taken as the type, their great

ancestor in times of yore once discharged the office of a barber. The story is as follows;—Bhagabati, the wife of Mahādevā, agreeably to the custom of purification observed by Hindu women, at the period of her first menstruation, stood under the necessity of the kindly offices of the barber to scratch the nails of her fingers and toes. She requested her divine lover to procure a barber for the purpose. The harum-scarum deity, reeking with the fumes of *bhāng*, forgot his wife's request in the company of his bacchanalian crew. In the meantime Bhagabati became impatient. The sun had climbed his highest, and yet Bhagabati had not bathed; she could not do so unless the nails of her fingers and toes were scratched. In a melancholy mood she hastened to a neighbouring stream, and as she stood in the water not knowing where to get a barber, she ordered a bubble which went floating by to be transformed into a barber. *Bimbadas*, or the bubble-born, not having barber's implements within reach, caught hold of a cockle-shell, and with it pared off the nails of the goddess. Hence Hindu confecturers, the descendants of *Bimbadas*, have obtained the mellifluous name of *mādhū-nāpitas*.

Who that has had the misfortune of groaning under an unshaven chin, but must have blessed in his heart of hearts that great benefactor who first taught the human race the art of shaving? And yet we venture to assert, without fear of contradiction, that the Bengali barber goes through a larger amount of work than his fellow-craftsman in any other part of the world. Your English barber of the nineteenth century only shaves the chin, and crops the hair of the head. But mark the ponderous labour of his Bengali brother. The Bengali barber, before commencing operations, takes out his brass-cup and fills it with water. He then sits down on the floor and opens his razor-case wrapped up in a bit of rag which, ever since it was torn from its parent web, has not been submitted to the fuller's soap. The razor of his choice is next picked out, and along with it the whetstone and the primitive strop, which last is nothing more than a piece of common leather. A drop of water is poured on the whetstone, and the razor is moved backwards and forwards upon it. When the razor is ascertained to have attained a good temper, it is rubbed on the strop and allowed to rest on it. Meanwhile the great business commences. The barber puts his left hand on the crown of the head of his unfortunate victim; dips his right hand, often smelling of the "fragrant reed," in the brass-cup; and plies the water largely upon the cranium, the forehead, the cheeks, and the chin, rubbing them over and over till the parts are well soaked. This done, the razor is taken up, and a whole jungle of bushy hair is

cleared off. The nails of the fingers and toes are next moistened with water, and their bony appendices are neatly pared off, and the nails themselves nicely rubbed. All this is followed in some parts of the Mofussil by a regular shampooing of the legs, the hands, and the back. Nor is this all. The barber thrusts sharp-pointed utensils into the ears, and brings out of their depths any matter which may have accumulated there. And yet for all this labour, and for all the anecdotes, the gossip, the information, the laughter, and "the agreeable discussions," of which Lamb talks, that are going on every now and then,—for all these the worthy craftsman receives the scanty remuneration of only one *pie*.

The ancient Greek barber had his *Koureion*, the Roman his *Fonstrina*, and the English barber has his "Shop," but the Bengali barber has no "local habitation" for the prosecution of his ponderous labours. He goes about from street to street, with no cry on his lips, and distinguishable in the crowd of his fellow men only by the bag under his arm, and often by the turban on his head. Unlike other men he paces the streets leisurely; looks at every door, glances at every window, and is always on the alert for a call. Immutable though the Hindu is often represented to be, he is yet not entirely unaffected by the march of intellect and the advance of civilization. Hence some Calcutta barbers, in imitation of their more polished European brethren, have begun to have, if not shops, at least, apologies for them. Half a dozen brethren of the strop may not unfrequently be seen sitting at the end of long street or the purlieus of a Bazar, and ridding pate after pate of their hairy overgrowth with lightning rapidity. During the Rains and in Midsummer an umbrella of the *Borassus Fabeliformis* or of the *Areca Catechu*, is often stuck into the ground to protect customers from the inclemencies of the weather.

No Bengali shaves himself, and yet he must shave, or else he ceases to be a ceremonially clean Hindu; hence a barber is a social necessity in Bengal. His presence, besides, is indispensably necessary to the performance of certain religious ceremonies. Hence every family in Bengal has its own barber; just as it has its own priest and its own spiritual director. And as the son of a spiritual director becomes the director of the son of his father's disciple, and the son of a priest becomes the priest of the son of him to whom his father ministered sacerdotally, so the son of a barber becomes the barber of the son of him whose beard his father shaved. Hence it may be easily imagined that one family of barbers may be immemorially attached to one Bengali house. In such a case the barber has a fixed annual salary. Poor families seldom give more than four annas a year to their family barber; the

middle classes seldom more than a Rupee ; while rich men, Zemindars and Rajahs, present to their barber rent-free lands in perpetual settlement. Wretched as is the pay of a barber in Bengal, it is eked out by the perquisites he receives during the thousand and one celebrations of religious rites which occur in the annals of every Hindu family.

From time out of mind, in Bengal the barber has discharged the office of a surgeon. While the disciple of *Dhanyantari*—the Indian Æsculapius, contented himself with the preparing of pills and the practice of physic, the bold barber was alone initiated into the mysteries of surgical operations. The English doctor prescribes for fever as well as lances a boil. It is different in Bengal. The *kabiraj* cures the fever but does nothing for the boil. Surgery is not his *forte*. That is the barber's department. Hence even at this time of day when, in a village, a wound is to be probed, a boil to be lanced, a tumour to be reduced, a stone to be cut, or a blister to be applied, our brother of the razor is alone found competent for the task.

* Births, marriages, and deaths are the three grand epochs in the histories of individual men, and in each of these seasons the barber acts no mean part. When a Hindu woman is about to be delivered of a child, the barber, in order to catch the intelligence first, hangs round about the lying-in room. No sooner is the child ushered into the world than the barber presents himself before the father of the new-born babe, and gives him the intelligence. On such an occasion, especially in the case of a first-born male child, the father handsomely rewards the barber. Besides pecuniary donations, the rejoicing father not unfrequently presents the messenger with the suit of clothes which he happens at the moment to have on. But this is not the only gain of the barber. He runs with the intelligence to the relatives, friends and acquaintances of the father, all of whom make presents to the messenger according to their condition in life, and to the proximity of relationship in which they stand to the new-born babe. The perquisites which a barber, attached to a rich family, gets, are often considerable. Besides money, in the cold season he is rewarded with blankets, broad-cloth, and shawls. The poorest peasant that ever handled the plough over the paddy fields of Bengal, on the birth of his first-born child, gives some reward to the messenger fraught with the glad news. On the fifth and twenty-first days after delivery, agreeably to the laws of Hindu purification, the nails of the finger of the mother must be scratched ; hence the services of the barber's wife are had in requisition.

In the celebration of Bengali marriages the barber plays a conspicuous part. The active interference of the *Ghatak* or the

genealogy-monger is not more necessary to the discovery of either a blooming bride or a wealthy bridegroom, and to the drawing up of the marriage contract; the presence of a priest is not more necessary to make the sweet tie binding, than the humbler ministry of the barber to the consummation of the rites of Hymen. Under-servant of *Madan*—the Indian god of love, the barber does a great deal more than his senior brethren. With a light heart, and a cheerful countenance he goes about whistling, and gives to friends and relatives timely notice of the approaching solemnity. The marriage oil and turmeric, without which no Bengali marriage can be celebrated, and with an infusion of the latter of which articles the parties about to be united, as well as their rejoicing friends, profusely rub their bodies and stain their clothes, the barber carries to neighbouring families. Who that has lived in a Bengali house a few days immediately before a wedding, and has witnessed the incessant noise, the agreeable confusion, the delicious disorder reigning everywhere, but must have marked the important part played by our brother of the razor? He runs about from one apartment to another, answers every call, and gives animation to each scene. His is the loudest laugh, and his the merriest joke. On the wedding-day, and a few hours before the solemn celebration, the barber takes out his best razor and shaves the fore-head of the rejoicing bridegroom. Nor is the barber's wife unemployed on so interesting an occasion. She gently scratches the nails of the fingers of the gay bride, takes the superfluous brawn of the soles of her feet, rubs them with burnt brick, and points them with lac. While these operations go on, what blessings do not both the barber and his wife pour on the heads of the bride and the bridegroom? To the latter the barber eulogizes the charms of the girl about to be his, expatiating, with an eloquence which practised orators might envy, on her gazelle-like eyes, her vermilion lips, her elephant-like gait, and her slender frame, while to the former the barber's wife holds out the prospect of heaps of gold, baskets full of ornaments, sons as handsome as *Kirtik*—the Indian god of war, and daughters beautiful as the *Apsaras* of Indra's heaven. The nuptial shaving over, the barber and his wife diligently busy themselves with dressing the bride and the bridegroom and decking them with golden ornaments, and rend the air with the marital exclamations of "Ooloo! Ooloo! Ooloo!" And in the eventful hour when the solemn priest goes through the marriage-service, and joins the hands of the happy pair, the barber stands at their elbow as their guardian angel. It is hardly necessary to remark that for all these delightful services the barber is handsomely rewarded.

Nor are the ministrations of the barber of less importance in the season of death. His services are indispensably necessary

to the celebration of rites which follow either ten, fifteen, or thirty days after cremation, according as the deceased was a Brahman, a Vaidya, or a Sudra. When mourning, Hindus do not change their clothes, do not partake of the dainties of the table, neither do they shave. On the 10th, the 15th, or the 30th day, as the case may be, the near relatives—the kith and kin of the deceased, assemble themselves together, and call for the services of the barber who, on such occasions, is rewarded with clothes, brass-pots, and money. Thus is the barber a ministering spirit in the critical seasons of birth, death, and marriage. What Hermes was in the Greek Pantheon, what Mercury was among the gods of Pagan Rome, what *Narad* is to the immortals of Indra's heaven, that is a barber to Bengalees. Like Ahimaaz, the son of Zadok, the Bengali barber is a "good man and cometh with good tidings." Is a ceremony to be performed in a village? Is an invitation to be given to a feast? Is a child born? Is a marriage to be solemnized? On such occasions who carries the news but our swift-footed, clear-headed and light-hearted brother of the strop? Happy men! to carry about only glad tidings to the children of men, to announce to rejoicing fathers the birth of new-born babes, to add hilarity to marriage festivity, to put an end to the lamentations of sorrowing and bereaved relatives, and thus to scatter sun-shine on the path of life!

The Bengali barber has a merry heart. He talks everlastingly, discoursing on all possible subjects, glancing from earth to heaven and from heaven back to earth, but delighting chiefly in gossip, revealing the secrets of the Zenana, and pouring sweet scandal into the ear of malignity;—on such matters he would talk on to the end of the chapter unless stopped by the necessities of his profession. His anecdotes, of which he has a plentiful store, of things new and old, he relates with a *naïveté* truly refreshing. His jokes—and he is full of them—are none of the Joe Miller kind, stiff, unnatural, cold: but fresh, lively and piquant. His laugh is not of the sardonic kind, consisting of a show of the teeth, a raising of the upper lip, and a wink of the eye, neither is it what a Bengali calls a *wooden* laugh, only lip-deep; but it is the loud, clear, sonorous, silvery guffaw of jolliest mirth. In a word the Bengali barber, like the nymph in *L'Allegro*, brings with him, wherever he goes,

"Jest, and youthful jollity,
Quips, and cranks, and wanton wiles,
Nods, and becks, and wreathed smiles,
Such as hang on Hebe's cheek,
And love to live in dimple sleek;
Sport that wrinkled care derides,
And laughter holding both his sides."

The shrewdness of the barber has passed into a proverb. Whether it be that the sharpness of the tools he uses for the prosecution of his humble trade has produced a corresponding sharpness of his mental powers, or that his professional contemplation and manipulation of the cranium—the seat of the brain, and of the “human face divine,” have quickened his intellectual perceptions, whether the one or the other or both be the cause—and we leave the matter to be decided by abler heads than ourselves—certain it is that a barber is a most intelligent being. The “cunning barber” is a household phrase in Bengal. Cunn-*ing* or *canning* (from *can*) as Carlyle often tells us, is indicative of mental power. Says the homely adage, “the crow is not more decidedly the most cunning of birds, the jackal of quadrupeds, and Narad of gods, than the barber of rational bipeds.” In this respect the barber is said to present a striking contrast to the weaver. Our friend of the shuttle, says venerable tradition, puts his hands round a post, fills them with fried rice, and does not know how to take his hands back except by removing the post. He sees a field covered with the *Saccharum Cylindricum*, and, mistaking it for a field covered with water, attempts to swim, and comes home with a bleeding body. Our brother of the razor is no such simpleton. He passes a shuttle where a pin refuses to enter, drives a camel where there is not room enough for a needle to pass through, makes anything of anything, and is, without all controversy, the cleverest animal that ever walked on two legs.

The barber's wife, who, in other countries, is quite a sinecurist, exercises no less influence in the parliament of women than her husband in the assemblies of men. We have already enumerated the services she renders to humanity. She pares off the accumulations of osseous matter on the nails of the fingers and toes of the ladies of Bengal, takes off the fleshy over-growth on the soles of their feet, and gives them the red paint. On such occasions, she is as eloquent, (we should rather say ten times more eloquent,—for what lady ever yielded in fluency of speech to the other sex?) as anecdotal, as jocular, as facetious as her husband. When pursuing her gentle avocations what jokes does she crack! What savage criticism does she make on the personal deformities of the betrothed of some throbbing maiden! What glowing eulogies of the corporeal graces of the husbands of the ladies she serves! What revelations of the nocturnal broils of ill-matched couples! She is the ladies' maid of honour, the ladies' surgeon, the ladies' messenger, the ladies' gazette.

We know not how it is, but it is a simple fact—and we leave the matter to be explained by professed ethnologists—

that the barber so universally liked by Bengalees for "courtesy, 'humanity, and all the conversational and social graces which gladden life," is thoroughly detested by Ooriya Palki bearers. Whether it is that a barber is looked upon as a sort of scavenger of humanity, or that his universally admitted cleverness is a sort of reproach to the proverbially stupid Ooriya bearer, it is a simple fact that the worthy gentlemen who bear us about on their shoulders will, for no inducement whatever, touch a Palki with a barber in it. No doubt with the progress of liberalism and the decline of orthodoxy which characterize this free-thinking age of ours, Ooriya bearers may possibly be found here and there, for high pecuniary consideration, to break through the time-honoured prejudice; but we are certain no orthodox bearers of the right *Jajapura* class will ever do it. Like Charles Lamb we ourselves are rejoiced in the acquaintance of a "truly polite and urbane friend" of the barber-caste, though not in the trade. And it amused us not a little to hear our friend often say that he could never get a Palki for hire near his own house, for all the Ooriya bearers knew that he was of the barber-caste. Whenever he wanted a Palki he had to walk a great distance from his house, and engage bearers who remained in blissful ignorance as to his caste. The oil-man and the washerman share with the barber the Ooriya bearers' contempt.

It is not a little remarkable that the members of the trade whose manifold virtues we have thus attempted very briefly to delineate, have never risen to distinction in Bengal. While the proverbially dull weaver and the socially degraded banker have, in a hundred instances, risen superior to their natural stupidity and social degradation, the barber, though possessed of quick parts and holding no mean position in the fabric of caste, has never distinguished himself from the rest of his countrymen. In England a barber invented the spinning jenny and was created a baronet, and the son of a barber not long since graced the woolsack. In Bengal, however, a barber is always a barber to the end of the chapter. The reason of this is very likely to be found in the scantiness of the remuneration he obtains in the prosecution of his humble calling, and the little facilities it affords for the accumulation of wealth. But what matters it after all that the barber has never risen to celebrity? It is sufficient for him that he has the hearty goodwill of mankind, that he alleviates their sorrows, and that he scatters cheerfulness wherever he goes. Long may he pursue his useful avocations, long may he "gladden life by his conversational and social graces."

ART. V.—1. *Standing Orders of the Department of Public Works; compiled under the authority of the Most Noble the Marquis of Dalhousie, Governor General of India, in concert with the Military Board, by LIEUTENANT COLONEL J. T. BOILEAU, Superintending Engineer, North Western Provinces. Roorkee. 1852.*

2. *Code of Regulations for the Public Works Department under the Local Governments of Bengal, the North West Provinces, and the Punjab, and for the Minor Administrations under the direct control of the Government of India. Published by authority. Calcutta. 1858.*

ONE of the first improvements that may be expected to follow the assumption by the Crown of the direct Government of India, is a more vigorous prosecution of public works. The favourite agency for this seems at present to be the establishment of private guaranteed Companies; but however rapidly these may increase, there must still for many years be left abundant room for the direct action of Government, even supposing that this is confined to works of necessity, and that the financial advantages to be gained by augmenting the otherwise inelastic revenues, through the Government itself undertaking the chief execution of works of a remunerative character, are not perceived, and adopted. At any rate the "Public Works Department" already includes an enormous number of officials, and if it be not extended, it certainly is not likely to be diminished. Its influence on the general improvement of the country must be very considerable, and it becomes therefore of great importance that its constitution should be of the most economical kind, and its machinery as efficient as possible. Of late years its organisation has undergone many alterations, and many more are in contemplation, so that the present time is opportune for discussing its merits. This we propose to do briefly in the following pages, pointing out what we conceive to be still defective in existing arrangements, and what should be the remedies.

To comprehend thoroughly the present state of its organisation it will be necessary to note the different changes through which the department has passed, from its first formation to the present time, and to distinguish clearly between those changes in its economy which have arisen naturally in the course of things, and those which have been advisedly made from time to time with a view to its improvement. This distinction, if kept clearly in view, will be of much service in our enquiry, as we shall find that what is defective at present is generally a class of causes;

and this being so, it will be sufficient to shew the defects to afford the presumption that they should be removed. While with those parts of the machine which do not work well, but which have been introduced *as* reforms, a more careful procedure becomes necessary; it will be incumbent on the reformer in such cases, not only to expose the defects, but to offer a remedy.

The first thing, then, to be noticed is, that Public Works in their proper sense may be said to have had no place in India till within the last ten years. The department dignified by that name was in truth merely engaged in the conservancy of the various Government buildings, Military and Civil, scattered over the country, and which are only *public* works in the sense of not being *private* ones. A few roads had certainly been constructed here and there, but in a desultory unsystematic way, and almost entirely as Military undertakings. They were generally commenced, indeed, in the first instance by the Quarter-Master General's department, and were first avowedly made over to the Public Works Department in 1825. The embankments in Bengal form no exception to our rule, since they were held to be of a strictly conservative character, not a means for augmenting the Government revenues, but for maintaining them at their level, and they had been in use before we took possession of the country.* The title of "Public Works Department" was therefore a misnomer. It was in fact one of the Military establishments of the Government, its officers being chiefly employed in the conservancy of Military buildings, and works connected with them, and having also the care of the Civil buildings in their respective neighbourhood as an economical arrangement. And accordingly, even as late as 1854, when the principle of public works had come to be largely recognised, and the Civil element had been largely introduced among the officers of the department, this Military organization still existed, and its proceedings were all conducted through the Military branch of the Secretariat.

The first public work in the proper sense of the term, was the great Ganges Canal, which was fairly commenced in 1848, and from this year may also be dated the introduction of Civil Officers into the department, a measure which has greatly improved its organization, and has proved a great advantage to the service of the State. Close upon the Ganges Canal followed the inauguration of a liberal scheme for public works in the Punjab (upon the annexation of that country), the good effects of which reflected upon the whole of the Bengal Presidency. Then

A canal department was certainly established in the North West as early as 1820, and with a view to benefiting the people of the country, and augmenting the revenue, but its operations were chiefly confined, until the Ganges Canal was undertaken, to restoring and improving existing works of irrigation.

followed the annexation of Pegu in 1853, when the physical improvement of that country engaged the keenest consideration of the Governor General, Lord Dalhousie, and with the happiest results. From this time the material progress of India has largely occupied the attention of the Indian Government both here and at home, and the prosecution of public works, in their proper sense, has become a recognised part of the duty of the State.

In connection with this amended state of things, a thorough reform in the agency for conducting these works became obviously necessary, and has been prosecuted steadily from 1854 to the present time. The first and radical change was the extinction of the Military Board, which was the managing head of the department, its organization as a professional and Civil branch of the service, and the creation of a separate bureau for public works at the seat of Government. These changes bring us nearly to the present state of things, but before enquiring into this state, we must glance briefly back upon the old constitution, the leaven of which still largely pervades it.

The Military Board, which was the controlling authority over all Public Works, was originally constituted to manage the different Financial Departments of the Army, of which the construction and conservancy of Military buildings was one. It was usually formed of four or five Members, who were the heads respectively of the Departments over which the Board presided, but who had no control, otherwise than in their capacity as Members, over their own branches of the service. The Chief Engineer was always liable to be overruled on any engineering question by the united opinions of the Commissary General and the Commandant of Artillery, and the others were similarly placed with regard to their departments. Moreover, the Board had been originally established to audit and *check* expenditure, and all its traditions referred to economy and reduction rather than outlay, so that any thing like a judicious expenditure for future returns was opposed to its principles. In addition to its vicious constitution the Board was further ineffective from being overloaded with work. It provided the same machinery for conducting the enormous duties of the Empire in 1854 that it possessed in 1800, and further, its position in a corner of the presidency made the necessary references from the officers subordinate to it excessively tedious and protracted.

Under the Board came the Superintending Engineers, generally senior officers of the Engineer Corps, whose titles sufficiently describe their duties. These officers had nothing to do with the expenditure or accounting of money, and could thus give their undivided attention to their Engineering duties pro-

per, and they should have formed the most efficient part of the system. There were however too few of them, there were only seven for the enormous Bengal Presidency, most of whom had enormous districts which they could with difficulty visit once a year; thus their superintendence became too often merely nominal, and themselves mere vehicles for correspondence.

The last link in the chain was the Executive Engineer. The circle of a Superintending Engineer was divided into a number of divisions, each under the charge of an Executive Engineer or officer. A division comprised a Military Cantonment, or a group of stations, or a line of road or canal, and in this division the Executive combined the duties of engineer, builder, surveyor, clerk of works and contractor, and accountant. It was his duty to prepare the designs and estimates for all works required to be executed in his division, and on their being sanctioned, to construct them, having first in most cases, and except in the immediate neighbourhood of the Presidency, to prepare the necessary materials with his own establishment. He had also to keep the accounts of all expenditure, for the whole of which he was personally responsible, in a very detailed and complicated form, and until the account of each work was rendered by way of a bill drawn on the Government, and this Bill was passed by the Military Board, (which was never done unless it tallied satisfactorily with the estimate, not only in regard to the total sum, but with the different parts of the estimate, item per item,) the whole of the money advanced to him remained at his personal debit. The Executive Engineer had occasionally the services of one or more Assistants if his charge was very extensive, but for the heavy and complicated accounts, which too often formed the most burdensome portion of his work, he had no better help than could be derived from ignorant ill-trained clerks. The executive officers were either appointed from the Corps of Engineers or from the Artillery and Line. It was repeatedly ordered by the Home Government that the duties of the department should be confined as much as possible to the former, but as there have never been for the last forty years enough engineers to fill the appointments, these instructions have of necessity been disregarded, and indeed latterly the engineers formed only a minority in the Department. Of the line officers employed to make good the deficiency, some were regularly trained to their duties, entering the department when young as assistants and rising gradually to more important posts as they became fit for them; some excellent practical engineers have been trained in this way, but frequently men of no experience or professional knowledge were put at once into importance charges, sometimes from pressure of circum-

stances, and the want of qualified men, more often of course from their having interest.

The faultiness of such a system is made sufficiently clear by observing that it is the very last which any one creating a *new* department would ever think of establishing, but its defects were chiefly the growth of time, or rather the progress of the age had left it behind. No one in the present day would dream of proposing to entrust the management of a vast scientific department to a board of gentlemen whose only qualifications were respectability and age, but when the Military Board was established, Boards were the favorite vehicles of Government for every thing. So also, the tendency in the present day is to require a special training for almost every employment, and the pursuit of an engineer is particularly held, everywhere but in India, to require in those who follow it a regular professional education, and the undivided attention of a lifetime to gain aptitude in it. But at the end of the last century, there was no such recognised profession as the engineer's; engineering works were comparatively of a very simple kind, and were generally executed in an empirical hap-hazard fashion by those whom chance threw in the way of doing them. A few distinguished men there were, such as Smeaton, who might really claim to be called engineers, but generally the engineer or land-surveyor had little scientific knowledge or experience to distinguish him from any other class of men. It is not surprising, therefore, that similar pursuits should not be held in greater respect in India, particularly as the engineering works constructed here were generally of a very simple character.

But by far the greatest inconvenience of the system we have sketched arose, not from its machinery being defective in its working, but from its conservative anti-progressional tendencies. The Military Board being originally created to watch and control the expenditure of public money, and to check extravagance and unnecessary outlay of the departments subordinate to it, its traditional policy was to retrench and stop expenditure, and this still continued to be its *duty* towards every other branch of the service. It was not unnatural, therefore, that it should exercise a similar feeling towards the Public Works Department. Certainly its method of procedure was entirely in consonance with the existence of such a feeling, and all proposals for improvement were only carried through the Board by dint of pressure from without. Lastly, while the Board remained stationary the Empire had vastly increased, and the mere circumstance that every reference had to be made from local Governments in all parts of the Presidency to a Board in Calcutta, was pro-

ductive of most hurtful delay, independent of the vicious principles on which that Board was organised.

But a nuisance is often tolerated because no one sees the way to remove it, and the Board might have flourished to this day, had not experience in the Punjaub shewn how well it could be done without. The Board of Administration received authority, on the annexation of that province, to undertake the construction of their own Civil Works, and a large expenditure was sanctioned for the purpose. The Punjaub Government undertook the duty in a thoroughly liberal and enlightened spirit, and having fortunately entrusted the execution of their designs to an engineer of enlarged views and rare energy, the result far exceeded anything what had ever before been seen in India; in four or five years the Punjaub, in material progress, had already outstripped Bengal, our oldest possession, and bade fair to overtake the North West Provinces. This shewed what could be done when the tedious routine of the Board system was removed and a proper professional organisation substituted. The other subordinate governments became eager for similar independence, and a Commission was appointed by Lord Dalhousie to prepare a scheme for the reorganisation of the Public Works system. This Commission, which consisted of Mr. Charles Allen of the Civil Service, Major Kennedy, formerly of the Royal Engineers, and Consulting Engineer to the Government of India, and Major Baker of the Bengal Engineers, sat in 1851, and presented their report in the latter end of that year.

The substance of that report is much what we have stated. It pointed out how completely the requirements of the empire had out-grown the controlling power of any one man or body of men, it enlarged on the anomaly of entrusting the superintendence of a purely scientific duty to a body of unprofessional men who, as a rule, would be wholly unable to judge rightly of the merits of the questions that came before them, and it particularly condemned the complicated system of accounts in force, and the false economy of working that system by the Executive Engineers, whose attention was distracted from their proper duties by their overwhelming office work as Accountants, a duty which, the report observed, they were not trained to perform, and which would be better done by a separate and less highly paid class of men. These were the three main defects commented on by the Commissioners. To remedy them, they proposed two radical changes. First, the removal of the control over Public Works from the Military Board, and the appointment of a Chief Engineer for each province in the Presidency. By this arrangement the business which overwhelmed the Board would be distributed among several different offices, and professional experience would

be brought to the aid of the Government, which it wanted at present. Secondly, they recommended the appointment of a professional accountant to every executive office, to relieve the engineers of the drudgery of accounts and set him free for his proper engineering duties. The Commissioners did not offer any detailed proposals for a system of accounts, but confined themselves to a few obvious suggestions for simplifying the procedure. They probably felt that though the engineers might be relieved in details, the accounts would still be best made up in the office where the money was disbursed, or at any rate that radical changes of this kind in a vast Department should be made with great caution, and would require more time and space to effect than they could give.

These recommendations were warmly supported by the Governor General, and sanctioned by the Court of Directors. They were carried into effect in 1854, or rather we should say, a modified form of them was adopted, for between the publication of the report and its adoption, a change of views seems to have taken place in those who were entrusted with the reorganisation, and the department in its present form, which we now propose to examine, differs a good deal from the ideal recommended by the Commission.

And first with regard to the Chief Engineer. A fatal error, and one which the exercise of a very little knowledge of human nature should have prevented, was made at the outset. Instead of making him the confidential adviser of the local governor in the business of his own department, reporting direct to him and taking his orders direct from him, he is forced to communicate through the Secretary of the local Government. We fail to perceive the smallest advantage to be obtained from this arrangement, while the disadvantages are obvious. Either the Secretary must consent to be a mere medium of communication, giving no opinions, and using no influence one way or the other, and such a Secretary no mortal man will ever make, or he will have opinions of his own, and will try to enforce them. In a difference of opinion between the Chief-Engineer and the Secretary on a professional question, the presumption is in favor of the former being right; but the latter has the best chance of carrying his point. Thus instead of being *en rapport* with his Lieutenant Governor and enjoying his confidence, the Chief Engineer and the local government have too often been found in a state of chronic antagonism, the former being constantly put, as it were, on his defence to justify every thing he does. That this state of things has operated very injuriously on the working of the new system, no one who has watched it can doubt. All this antagonism and the sore-

ness so apt to be engendered and so hard to avoid in any long continued official correspondence between two departments, would be avoided by placing the Chief Engineer in direct communication with Government, and making him virtually its Secretary in his Department. Another great advantage of this arrangement would be a further saving of correspondence with the Supreme Government. At present the Chief Engineer reports to the Secretary of the Local Government, who generally forwards the report, with the opinion of that Government, to the Secretary to the Government of India in the Public Works Department. Since the amount of reference of this kind is very great, there would be a manifest saving of time and correspondence if the Chief Engineer were himself the vehicle of communication between the two Governments, and we are unable to see any corresponding disadvantage to be apprehended.

The second necessary improvement is to relieve the Chief Engineer from all matters of accounts. His present combination of duties is a relic of the old barbarous system. The Military Board which was primarily a Board of audit, came gradually to be the head professional authority in engineering, and from their long continuance in the performance of these duties, it seems at last to be thought that some peculiar necessity exists for combining the two functions in one, that the head engineering authority must also be the Auditor. But if the point be considered without prejudice by those who are practically conversant with the working of the machine, they will perceive that no *primâ facie* reason exists for making such an arrangement. On the contrary, the presumption is all the other way, now that the economy of division of employments is better understood. Therefore to bind down the Chief Engineer, who it is supposed is the fittest man for his post, with a mass of extraneous accounts which might be dealt with equally well by men of less acquirement and on smaller salaries, merely because the confessedly inefficient board was so constituted, is merely to bring into the reformed system some of the worst defects of the old. The Chief Engineer must undoubtedly have a control over the expenditure of his establishment, but there is not the smallest need to make him on that account the responsible accountant and book-keeper, which he *virtually* is at present. A separate and independent Auditor should be appointed for the accounts department, and the Chief Engineer's share of that part of the work confined at most to the issue of assignments to the Executive Engineers; he may then have sufficient leisure to devote to his proper duties as an Engineer, which he has never had yet. We can imagine that many objections will be made to our proposal, on the score of the danger to be apprehended from conflicting departments, but

we are persuaded that such a system may be framed to work far better than the present one; we shall notice the main point to be attended to when we come to the question of accounts.

The Chief Engineer, even when relieved of the accounts, will still have a large quantity of office business to work through. This is one great misfortune in many other departments as well as in this, that when a man has made himself valuable by his experience in the field, we put him at a desk, and never allow him to employ his practical knowledge again. Of course the head of any large department must have a great deal of correspondence to get through, and no system can be framed which will stop it, but it would be something gained if it were placed on record by authority, that the correspondence and office works are *not* the main object and end of a man's duty, as they are too often thought to be, but necessary evils; and that the Chief Engineer should make it his aim to occupy as far possible the relative position held by the leading Civil Engineers at home with reference to the work under their supervision, and to consider this part of his duties as more important than the routine of the bureau, which at present usually takes the place of everything else.

Associated with the Chief Engineer are the Superintending Engineers. We have already remarked that these officers are better placed than any others in the department. They have neither the overwhelming business of the chief nor the wearying accounts of the Executive Engineers, but their time is available for their proper functions as Engineers, to superintend the designing and execution of works in their circles. Unfortunately, their value is destroyed by the enormous extent of their circles which contain each from twelve to sixteen executive divisions, many of the latter being larger than an English county. Thus, if each executive writes one letter a day to the Superintending Engineer, a very moderate allowance, the latter has at once a fair day's work cut out for him in mere routine business, while he cannot possibly visit all his stations within the year. A building may be sanctioned, and built, and have tumbled down again, before the Superintending Engineer has time to inspect it. In point of fact there is no superintendence at present.

Formerly, Superintending Engineers lived at some central point of their circles, but in order to save loss of time in passing references from the Executive Engineers through them to the Chief Engineer, it was ordered on the reorganisation, that they should reside at the same station with the latter, and form a part of his office. Their duties were thus confined to "advising" the Chief Engineer on the points that came before them, but

all correspondence was addressed to the Chief Engineer; the Superintending Engineers had no authority but what they might acquire by force of character, and in fact they were too often mere cyphers, or vehicles for passing on correspondence. The defects of this arrangement were found so great that a reaction has set in the other way, and we understand it has lately been ordered that the Superintending Engineers are to live again in the centre of their circles, and to have specific powers of their own. Here again will arise the evil of too many channels of correspondence, delay in reference, and divided authority, while the main defect of the overgrown circles remains as before.

But it may be safely predicated that no administrative scheme will work well which starts with a *chief and two deputies*. If the latter have independent powers, and refer only difficult points to their head, there will not be sufficient references from the *two* to keep him properly employed, and the burden of the work will fall on the deputies. If on the other hand they are only to record and report, they save the chief of the department scarcely at all, every question has to be settled ultimately by him, and they have served only to delay business. This last has, we believe, been the predicament of the Public Works Department during the last five years; the work would have been done quite as expeditiously and efficiently had there been only the Chief Engineer, while the superintendence has been too scattered and occasional to be at all effective. But the numbers speak for themselves. To have one man looking after two, and the two looking after thirty, is *prima facie* a bad distribution of force.

Nor is the distribution of the Executive Engineers a more economical one. It will be readily understood from what has gone before that the duties of an Executive Engineer are pretty much alike in every division. Each Engineer has to design and construct the works of every description that are required in it, and although there is to a certain extent a division of employments, as roads and canals are kept as distinct charges from the districts through which they run, and have separate establishments for their superintendence, still in the ordinary executive divisions which form the bulk of the department, the duties of the Engineer vary but little. An Assistant Engineer usually gets his promotion to Executive Engineer after from one to four years' service, and he will probably remain in that grade from 15 to 20 years. As a general rule certainly the heaviest divisions are given to the older men, and the lighter charges to the younger, and in this way only does the Engineer get an increase of work and responsibility in proportion to his experience; but this is by no means always the case, and of late years it has been

not uncommon to see the heaviest divisions, such as some of the large military stations in the Panjaub, held by young officers of five or six years' service, while old Captains on the eve of promotion were occupying the older stations where there was comparatively little to do: anyhow the plan which gives the old and young officer exactly the same kind of employment cannot be judicious. It would plainly be undesirable, even if the latter had received the best preparatory training, for he must constantly be meeting with difficulties for the mastering of which he has no experience to guide him; but it must be still worse when men have had little or no proper training. On the present system the Executive Engineer, no matter who he may be, is expected to be capable of designing and constructing every work in his division, and to be an expert and accurate accountant, and all without any assistance, for the Superintending Engineer, as at present constituted, is almost powerless to help him.

The evils of such a system are great. First, faulty designs must be the consequence of unqualified designers. It is true that those for buildings which have been *sanctioned*, are submitted to the correction and alteration of the Chief Engineer; but that designs should first be prepared by competent persons would manifestly be preferable.* But besides the *regular* business of a division, there must be always a great deal of building going on of an emergent nature for which there is not time to submit regular designs, and in these cases there is at present no guarantee for their being good ones. Moreover in regard to the *execution* of works, whoever the *designer* may be, we think it hardly necessary to enlarge on the importance of frequent inspections by persons of experience.

In addition to these objections there is to be added the great delay in every kind of work done by a man new to it. Few men like to confess that they don't understand their business, and certainly not those who owe their position to chance or favor rather than right; and sooner than seek advice on professional subjects from others, or set to work to master rudimentary difficulties, many novices prefer to remain ignorant, though the admission of want of knowledge must be the first step to remedying it. We have known numbers of men in this position, to whom it would have been no discredit to allow that they had still to learn everything connected with the profession they had adopted, but we do not remember to have ever heard the smallest voluntary admission that they felt any sense of deficiency, and we believe that

* Our remarks do not hold good for barracks and buildings which are the same everywhere. For these standard plans are issued to all stations, but they form only a small part of the business of the department.

this reticence is connected with a great deal of the delay in engineering operations so often complained of, especially in the delay in preparing preliminary designs and projects.

But if men are too soon placed in the position we have been describing, the system is equally faulty in keeping them too long in it. After a short apprenticeship as assistants, officers frequently remain twenty years without any promotion in position, (they *do* get promotion in pay) performing the same kind of work. Their duties become at last very wearisome, especially the accounts, and so they are apt to lose their professional zeal as they become old in the department; instead of seeking for the posts of difficulty, they too often settle down in the places where there is least to do, content to take things as easily as possible until their time comes for promotion, for which when it does come, they are then too often unfit.

The changes which we propose to make in the present system will therefore be already gleaned in part from the foregoing remarks. The executive divisions should remain as at present, but over every three or four, a Superintendent should be appointed, who would be able from the limited extent of his circle, to give a really efficient supervision over every work going on in it. The Executive Engineer would be the "Resident Engineer," to construct the work in his division, and to keep the accounts of his expenditure, but he would have nothing to do with the preparation of designs, a duty for which no man can be qualified at first starting. He will be sure of having the constant advice and direction in all difficulties of one more experienced than himself, and he will have the cheering prospect of becoming a Superintendent of works himself in from twelve to fifteen years, when he will be quit of the drudgery of account keeping, and have all his time available for real engineering duties, instead of having as at present to look forward to twice that number of years without any change, to be followed by promotion which takes him away from his profession, and puts him at the head of a mere office for correspondence.

The advantages in the change we propose appear so obvious, that we are surprised it has never been thought of and adopted before. At present you may often see a young novice of a few months' standing holding one division, and a grey-headed Captain the next, each doing exactly the same kind of work, and each receiving an infinitesimal quantity of supervision from a functionary five or six hundred miles off, with a Chief Engineer who has nothing to do with the engineering operations of his province except on paper, hopelessly attempting to get through an amount of business which only an admirable Crichton could accomplish.

With our plan the drudgery would be chiefly at the outset, as it ought to be. The Engineer would certainly have still to keep accounts. For this there is no help, the man who spends the money must be the responsible person, but he will be better looked after and helped than at present, he will not have duties placed on him for which he is unfit; while in time, as his services, become more valuable, he will be raised into a higher position where the experience he has gained will have a larger sphere to act in, and where the relief from accounts will give him more time for the practice and study of his profession.

Such a plan as this will go far to obviate the crying want for more engineers, since the services of those in the Department will be much more economically applied than at present. It will be essential that the superintendencies are not made too large (these, by the way, will be most aptly called *divisions*, and the present divisions *districts*) otherwise the old evil will be renewed. In our view of the case, no Superintendent should have more than five, and generally he should have only three or four executive divisions under him. Thus, for example, the North West Provinces are divided at present into 17 executive divisions, but of these many should be sub-divided, as they comprise out-stations which would better be placed directly under the Superintendent, since the functions of an Executive Engineer involving constant presence at his own works and offices, are altogether opposed to effective superintendence of a distant out-station. These 17 divisions are under two Superintending Engineers, in place of whom we would have seven Superintendents. One for Rohilkund, comprising the districts of Bareilly, Shahjehanpore, Moradabad and Nynsee Tal; one for Meerut, the hill stations and Dehra, and Roorkee; one for Agra, Allyghur, Mynpooree and Futtehgurh; one for Cawnpore and Allahabad; one for Benares and the districts in the Civil division of that name now in charge of Assistants; and one for Bundelcund. The different divisions of the Grand Trunk Road should be under one Superintendent, to ensure uniformity of management.

Again in Bengal there are 28 executive charges (exclusive of the embankment divisions which would remain a separate superintendency as at present) which would be distributed among seven or eight divisions. Of these the five executive divisions at the Presidency, viz., the Fort, the Civil Architect's charge, the Iron Bridge Yard, the Circular Canals; and the Soonderbun Road, would naturally make one; the overgrown Barrackpore division which has the large stations of Dum-Dum and Chinsurah attached to it, another, and so on. The Punjab would be conveniently distributed into six or seven divisions, and Oude, when road making is set into full swing again, into four.

Superintending Engineers, as at present constituted, would be no longer required. The new Superintendents might be advantageously divided into two grades, on 700 and 800 Rupees staff salary respectively, and as there would be so many more of these, giving increased promotion, the present grade of first class engineer might also be abolished.

The Chief Engineer, as will be presently explained, is no longer to have the non-professional duty of auditing accounts on his hands, and will thus have his whole time available for his proper work. He will be also in direct communication with the Government of the province, and its organ of communication with the Government of India, whereby a large amount of correspondence and a great saving in office establishment will be made, for at present each local Government has a large Public Work office, which fills pretty much the relative position towards that of the Chief Engineer that the Board of Control occupied in regard to the old Court of Directors. At the same time the Chief Engineer will not be in the position of a Secretary, in respect of being an irresponsible agent to convey and receive the opinions of others, but will have the control as at present of his department within certain defined limits, beyond which he will have to take the orders of the Government. Doctrinaires may doubtless be found to object to this plan, as opposed to the customary ideas on the relations of departments, but if the powers of the Chief Engineer, are distinctly laid down at the outset, there should be no practical difficulty in working it, while the saving of time will be immense, to say nothing of the advantage of suppressing the state of chronic irritation that has before now characterized the relations of the local government and its engineer department.

In those provinces which would have, under the proposed system, more than five Superintendents, it would still be necessary for the Chief Engineer to have some assistance in working the machine effectively. The reports and plans that would come up from half a dozen of the new divisions, would be very numerous; these, as there would be no Superintending Engineer, would come directly to the Chief Engineer and would be probably more than he could manage, since his general business, however much it may be lightened by relieving him from the audit, must always be very considerable. Whenever, therefore, the number of divisions under him amounts to *six* or more, he should have the assistance of a Deputy. This officer should be strictly a deputy, that is one to whom certain powers are deputed, and not as at present a vehicle of communication. His orders would have the same authority as those of the Chief Engineer, to whom alone he would be responsible for the exercise of that

authority in such limits as the latter might delegate. He would have no separate office or records, nor even separate numbers of office letters, and no *official* communication with the Chief Engineer. In practice, the latter would probably make over to him the charge of three or more divisions of superintendence, in which he would perform the functions of the Chief Engineer, referring such points as the latter might direct him to do; it being understood however that the Chief Engineer's decision is supreme and final in every case, as he should also be wholly responsible. We should thus have the advantage of a Board in the means of getting collective opinions, without its concomitant drawbacks of divided counsels and absence of responsibility, and we should have to a certain extent the division of labor which exists in the present system without its accompanying delays and expensive establishments for correspondence.

We can fancy that objectors will be found to such a scheme. They will urge the liability of the higher authority to be compromised through the irresponsible acts of his Junior, or that a man jealous of power may keep the business too much to himself, or that if the chief is indolent, the deputy may obtain the virtual direction of his duties, or generally that a clashing and jarring is sure to arise where the duties of two officials in such constant contact are not clearly defined. We reply to the last assumption, that their relative positions are perfectly well defined. The deputy will have authority only through its being placed in him by the chief; the latter will have in his records immediate access to the acts of the former, and the power of immediate check and control over them. Undoubtedly then he is responsible, as he deserves to be, for all that the former may do, and further, we may remark that the majority of official men have learnt by the time they reach such situations, to exercise forbearance and good sense. It will be obviously for the interest of the Chief Engineer to distribute the work fairly between himself and his deputy, and to take care that the views of the government of which he is the agent are carried out by the latter. The good sense of the deputy will lead him to conduct the work agreeably to his superior, while his honor will make him give effect to the intentions of the Chief Engineer in good faith. Undoubtedly it may happen that an indolent chief will suffer an improper share of his authority to slip out of his control, or an over-zealous one may fail to exercise a generous confidence in the acts of his junior (and it may be remarked that the latter is likely to be the commonest failing of the two,) but such cases will be exceptional, general rules must be framed for the generality of men.

We have already observed that a main feature in our scheme is

the separation of the accounts from the duties proper of engineering. This may be done entirely as regards the Chief Engineer's office; but with the Executive Engineer the relief can only be partial, though it still may be considerable. To explain this we must briefly touch on the question of accounts, though the subject is such a large one that we cannot do more than briefly notice its main points, and we fear that by no treatment can we make the subject very interesting.

We have already stated that the Engineer, under the Military Board and its system, had the whole management and care of accounts of his expenditure; he was debited with all monies received on account of a work, and eventually got rid of the liability by drawing a bill on the Government for the cost, upon its completion. It will readily be understood that any accounts involving large dealings with day laborers, and of materials which are constantly undergoing a change of value and form, must always be of a complicated and intricate character. Accounts of work will indeed be usually more intricate than mercantile ones, for while the goods of the merchant remain invariable in form, a hogshead always a hogshead, a bale of cotton always a bale of cotton, the materials on the Engineer's books are constantly going through a process of change. The mud worked up into a sun-dried brick gradually becomes transferred, after mixture with other materials, into the finished masonry wall. The tree purchased while growing in the forest is first enhanced in price by the cost of felling it, and further by the cost of transferring it to the place where it is required. When sawn up into logs or planks, the fractional cost of the tree which represents the value of, each log or plank, is to be increased by a part of the sawyer's wages, of the wear and tear of his tools, and further by a share of the cost of the shed built to protect it from the weather, and of the watchman's pay who looks after it. After this, it will probably be worked up for use with other materials, the prices of which have been determined in an equally complicated way, the price of the whole combined into a manufactured state being further increased by the cost of the labor to do so. So with lime, cements, paints and all other materials. To keep exact accounts of them through all these transitions, and to be able to shew what they are worth at every stage of the operation, involve account-keeping of a very complicated and difficult character. Heavy cash accounts with contractors and day laborers, though simpler than stock accounts, require method and attention, and it will therefore be readily understood that with every Engineer his accounts come to be considered a very important, often the most important, part of his duty. Now anything which takes him away from his proper duties as an Engineer, especially if it be something of a

mechanical kind which could be equally well performed by a less educated person, is to be deprecated, as causing a loss of intellectual power, but to a certain extent the system is unavoidable. So long as an Engineer has to execute works, so long he must pay for them, and paying for them, he must account for his payments; there is no way of evading this, but a good deal may be done to lighten the burden, and make it more endurable than it has been hitherto. Nor again is it possible to simplify the accounts; in the sense of making them shorter, or carrying them through fewer books and forms. If they are to be accounts at all, they must always be complicated and voluminous in details, though the general principles may be; as they should be, perfectly simple. But several causes have heretofore rendered them complex and tedious beyond what was either necessary or desirable.

Firstly, the rules of the department required that the bill rendered on the completion of a work should correspond minutely with the estimate submitted before its commencement, no reasonable latitude being permitted for variations in the design while the work was constructing; or perhaps it may be more correct to say that such deviations were permitted, but that they necessitated a tedious explanation in a tabular form which it was exceedingly difficult to frame. Thus the preparation of a bill came often to be looked on as a dreadful operation, to be avoided as long as possible. Further, a most unfair rule was maintained that a bill should not only be within the estimate for a work in its total sum, but that it should also be less than the estimate in every separate item. Thus if a work consisted of ten different parts, each forming an item in the estimate, although the Engineer might construct it altogether for considerably less than the estimate, and shew a saving in nine out of the ten items, he would still be responsible if the tenth item of the bill was in excess, and be liable to make good the excess out of his own pocket. But while this absurd rule prevailed, it was tacitly admitted by the authorities that the item of a bill might be *adjusted*, so that those which were under the mark might be made to help those which were not. Thus while the total amount still represented exactly the total cost of a work, it was usual, with the tacit consent of the Auditors, to prepare the different items comprising it with reference to what it was thought they *should* have cost, before they were commenced. This system was of course productive of exceeding delay, because after the actual accounts of a work had been closed, the artificial process called the making out of a bill had still to be gone through.

Another prolific cause for trouble arose from the necessity for keeping back the bill until the work was completed, though its

construction might extend over several years. This would have been chiefly mischievous only in augmenting the mass of accounts in an office, and the money responsibility of an officer, had he always remained to finish the work himself and submit his bill, but of late years especially, the exigencies of the service have led to frequent transfers of officers at short intervals, and it has not been uncommon to meet men who have large outstanding debits against them for unclosed accounts in three or four different offices. It is true that the regulations of the department required an officer on quitting a division to prepare bills for the *portions* of works constructed by him up to date. But in many cases he was ordered away suddenly for emergent duty, and even if he were not, to prepare such bills supposes that the accounts were closed up to date, which by the very nature of accounts was an impossibility.*

But the principal reason for the delay and embarrassment which the accounts generally occasioned arose, we believe, from the majority of officers not knowing how to keep them. The management or rather mismanagement of accounts, like every other business, under the old Indian system, was supposed to require no special knowledge or training, and as men are slow to confess themselves unable to do what the majority of those about them profess to find perfectly easy, it was scarcely to be expected that any cry for reform should come from within. But Book-keeping, though not a science of indefinite extent, or having, like Mathematics, difficulties which only certain minds can overcome, has yet its main principles which cannot be violated with impunity, and these few men are likely to find out by themselves; most of its operations admit of being done in one definite best way, and to know this way is to be saved a great deal of useless labor. The Military Board, which was only a Board of Audit, kept no books, and it laid down no system of books for the officers of the department; it had indeed established a set of forms for the different returns to be made to itself, but it did not instruct the department how to keep books which should afford the means of exhibiting these returns in a simple and efficient manner, and any one attempting to keep accounts by the use of the Board's forms, and *no others*, would infallibly have got into a hopeless mess. Each officer was therefore left to himself to establish his own system of book-keeping, and the result was what might have been expected. Some few went to principles and did well, some hit upon plans which gave them correct accounts exhibited, and all necessary details, but

* The Public Works accounts *must* always be in arrears, to what extent is an open question, but those who look to any system to prevent the accumulation of *some* arrears, cannot understand the subject.

with vastly unnecessary complication of books, and requiring the constant attention of the officer himself; while others, in whom the bump of order was probably imperfectly developed, never succeeded in establishing any system at all. In the latter case the preparation of the bill after a work was finished, was of course an almost hopeless task, and if ever accomplished, involved an amount of mental labor that, properly applied, would have made the unhappy officer a finished accountant. Lastly, we must not omit the aggravating circumstance that, from press of work, the Board was greatly in arrears in auditing such accounts as ever came before it.

This explanation has been necessary to understand how matters stand at present. The Commission knew well that in India the man who spends the money must be the one to account for it, that the Engineer must also be the responsible accountant, however uneconomical the distribution of labor may apparently be; but assuming this to be fixed they suggested several means of lightening his labor. The principal of these were;—1st, a more rapid audit, which they proposed effecting by having a separate audit office for each province, and by permitting a greater latitude in the difference between the estimate and bill, thus rendering the preparation of the latter easier, 2nd, that every executive officer should be properly instructed in the principles of account-keeping; 3rd, that a responsible accountant should be attached to every office to relieve the Engineer from the main drudgery of the books and give him more time for his engineering duties. The first of these proposals has been carried out under the present system; as regards the second, things remain much as they were then; the third reform has been sought to be effected in a different way.

Lord Dalhousie, in sending the report of the Commissioners home, supported warmly all their propositions, but suggested whether it would not be possible, as a more economical arrangement, to appoint an Accountant to every two or three executive offices, instead of to each one. This proposition took off the Commissioners at a tangent, and their original scheme eventually resulted in the present system of a central office of accounts for each province in the Presidency. The plan is merely an expansion of the principle of Lord Dalhousie's suggestion, in its details the system of the Ganges Canal has been adopted. The central office consists of a complete establishment of accountants and book-keepers, who receive through the Executive Engineer the original accounts of each subordinate disbursing Agent serving under him, and work them up into the eventual bill, which the central office then draws against the Government. All the stock accounts of the Executive Engineers are also kept in the

central office, who has thus only to deal with the numerical quantities of the articles under his charge; the Contractors' accounts are also ledgered there, and the Engineer's expenditure is audited month by month. We have not space to discuss here the respective merits and demerits of the new system as compared with the old; there is a great deal to be said on both sides, and to do justice to the subject, which is a highly important one and on which depends in great measure the efficiency of public works management throughout the country, would require an Article in itself. We may remark however that by the new plan a uniformity of system must of necessity be established, and the accounts are dealt with and worked up by an efficient well trained office, so that the bungling and confusion which characterized the executive offices of former days will be prevented. Undoubtedly too, a more rapid audit will be practicable than used to obtain. On the other hand it must be admitted that the old school has some grounds for prophesying failure, or at any rate that the system of centralisation will not produce all the advantages which its admirers expect, though this may happen from their expecting too much, not because it is not an advance on former practice. Under the old plan, the Engineer *virtually* audited the accounts of the disbursing Agents subordinate to him. This duty is now performed by the central office, the original accounts being forwarded to it through the Engineer, and as a mere question of audit the alteration is plainly objectionable, since the central office has not the same means of comparing the accounts with the work done which the Engineer on the spot possessed. Those who anticipate from the new system as a set off against this, that it will give the Engineer entire relief from accounts, will be disappointed. No system that can be devised will remove responsibility from him who has to spend the money; it may save him from the worry of stock accounts and bill making, but as long as he has heavy running accounts with contractors, so long must he keep a ledger, and to be properly informed on the state of his division between the intervals of receiving the different statements of his accounts from the central office, he must keep at least a number of office memoranda, which will be little less troublesome than regular books. Those too, who look for an *immediate* audit as the first of the new system, will certainly be disappointed. Such a thing is impossible. With the large extent of most divisions including many out-stations where the disbursements must be in the hands of subordinates, often ill-trained and frequently changed, it is hopeless to expect that the returns should always be made with

punctuality and exactness,* to ensure their being so, an increased establishment would be necessary, costing more than the gain would be worth. A delay or irregularity in the submission of the accounts from one sub-division, throws out the accounts of the whole division, and delays their audit; in such cases, we have it intended to keep to the letter of the rule, by auditing only the accounts that are sent up properly, and retrenching the remainder, but this is of course merely the shadow not the substance of an effective audit. We think also that the new system is fairly chargeable with not being carried out in its entirety, and so being unnecessarily complicated. At present all retrenchments in the accounts of a subordinate are made in the first instance against the Executive Engineer, who recovers them from the former, so also all credits passed for works in the division go through the Engineer's books, and his office is thus in point of fact a central office itself for the collection of the accounts of his subordinates, and we confess we can perceive no insuperable objection to extending the principle of the new system to its logical result, by dealing directly between the central office and the original disbursers, and limiting the Executive Engineer's share to advancing cash to them and checking their abstracts.

Still, on the whole, the present system must be admitted to be an improvement on the old system or rather want of system, though we conceive it to be very far from the best that could be framed, and we think it to be regretted that an attempt was not first made to reform the latter on the plan suggested by the Commission, of making each executive office thoroughly efficient in itself, since from the necessity we have explained of still partially keeping up a double set of books, and the increased liability to multiplicity of reference which must accrue as the accounts go farther from the fountain head before they are worked up, the present system must always be an expensive one.

Another reform which remains to be introduced, is the consolidation of all the clerks in the public works offices into one establishment through which promotion should go according to merit. At present each executive officer entertains his own clerks and can dismiss them at pleasure, a system full of defects. Of course where the tenure of a situation is so uncertain, a proportionally higher rate of pay must be given. Also, since there

* We doubt the expediency of the late penal regulations exacted on this head. When the good men of the department fall into arrears with their accounts it will be from force of circumstances to which the rules do not apply, and surely there are already sufficient means of coercing the idle and inefficient without making general rules to wound the *amour propre* of the whole department.

is no certainty, nor even any definite prospect of promotion for the clerks, they will on this ground also require comparatively higher pay on first taking the situations, just as no Ensign would come to India for two hundred Rupees a month, if he had only a chance of becoming a Lieutenant. But the worst part of the present hand to mouth plan is that all the offices in the country are bidding against each other, and there is thus a constant tendency to a rise of wages without any corresponding increase of efficiency. This is not the effect of free trade in baboos, or of unlimited competition, but simply because Government is constantly bidding against itself through its own officers.*

We have known the head clerk of an office on 40 Rupees a month, enticed away to be head of the office of an adjacent division where the duties were not a whit more difficult, but where the pay had lately been raised to 100 Rupees, without the smallest reason, and we could mention a dozen similar cases, where nothing has been gained in efficiency and no new men brought in, but where the wages of those have been increased who were perfectly satisfied with what they were getting before.* This has been going on until now the rate of clerks' pay is not only relatively, but actually higher than in England, and a half-educated baboo who is incapable of drafting the smallest letter, will often be met with in the receipt of a better salary than a well-educated gentleman in a similar capacity in London receives, to say nothing of the ordinary income of a curate.

We would therefore classify all the clerks of the public works offices of each province into one list, having a few good prizes (which would be chiefly in the audit offices,) and with such in prospect for men to obtain with some degree of certainty, there would be no difficulty in getting able candidates. The establishment might be divided into an upper and lower grade, consisting of accountants and writers respectively, and superior candidates might be allowed to enter the upper class at once, though generally it would be supplied by deserving men from among the writers. Since the number of writers must constantly fluctuate with the work to be done, it would be undesirable to fix too particularly the numbers of each grade; all that would be required to effect our proposed reform would be to fix the number per cent. on each scale of pay, which would leave the establishment sufficiently elastic and would stop the irregularities and anomalies that are now common.

This proposed amalgamation of offices into one establishment

* This kind of competition goes on a great deal between different departments, as well as within the Public Works Department itself. The late increase of salaries in the Commissariat office has attracted several men from the former, much to its detriment.

would be of great service to officers who have to undertake suddenly the construction of new stations. At present an officer so circumstanced has to pick up his clerks the best way he can; at first, when he wants them, most he has no one, and thus it often happens that before he has organised a proper establishment, he is already hopelessly in arrears, which embarrass him as long as he continues to hold the situation. The only objection we can imagine being made to our proposal is that if the clerks were formed into a department, and their promotions were to emanate from the central office, they would be too independent of their immediate chief. But such an objection would be quite groundless. The head of the office will still have ample authority, as the promotions must be dependent chiefly on his recommendations. The present Draconic regime of dismissal at pleasure, tends rather to make men reckless than careful in their behaviour.

The executive offices being organised as above proposed, the central office of audit and account would be separated entirely from the Chief Engineer's office. The first essential for an audit department is that it should be to a great extent independent of the disbursing department. The Auditor, who should be an officer of experience in the department, must correspond with the local Government through some Secretary, who might be the Chief Engineer in his capacity of Public Works Secretary; and to ensure harmonious working with the executive offices, it would perhaps be desirable that the Auditor should be to a certain extent subordinate to him, but it should be distinctly understood that the Auditor is himself responsible for the accounts department, in all matters relating to which the Executive Engineers should be bound to take his orders. Some will object to this proposal on the score that the Engineer will be unable to act effectively under two superiors, but we doubt if such an objection be a practical one. The Magistrate and Collector may be said to have two Masters, the Judge in criminal and the Commissioner in fiscal affairs, and he has to supply returns to half a dozen other departments besides. The canal officers in the North West are subordinate both to the Commissioner and the Director of Canals, and also to a certain extent to the Judge, but we have never heard the slightest whisper against the practical efficiency of the Canal system.

The appointment of Auditor should be filled at first by a man of method and ability, and the salary should be higher at first than it is intended to be ultimately, as the work of construction will require far higher powers than are necessary to keep the machine going when once it is set fairly in motion. It will not be enough to issue a set of forms, but the men in charge of divi-

sional offices must be taught how to keep their books in such a way as to enable them to exhibit such facts quickly and easily. In fact the whole department has to be taught book-keeping, of which it knows very little at present, and great care and constant inspection by the Auditor of the executive offices is indispensable. It will be required to render the system well understood and effective, and for the next three or four years the Auditors should be the hardest working men in India.

Although the reform in accounts cannot be introduced too soon, it is quite essential that it should be introduced gradually, or the change will cause inextricable confusion. A great mistake was made in this way in the Punjab in 1857. A "new system" (one of some half-dozen that have been tried in as many years) was ordered to be commenced on the 1st of May, on which day every executive officer was to send in a general balance sheet, showing his stock and all other liabilities brought up to date. The order was issued about a week before the return was required, and being addressed to offices which were all months and many years in arrears, and where in many cases it would have been impossible to take stock or close the accounts under weeks of unrelenting labor, the result would have been plain. Not a tithe of the information necessary for opening a new set of books would have been received at the central office, while the unfortunate executives would have lost in the effort what little method they possessed before, and the whole department have been thrown into confusion. The Mutiny happened in time to prevent the attempt. A similar effort was made in the North West Provinces in 1854, to transfer every description of account in one day from the divisions to the central office, and the result was that up to May 1857, when all the accounts were fortunately swept away, not a single audit had, we believe, taken place except for establishment pay bills.

The proper way to effect a reform of this kind is to take up each division separately, and to transfer the accounts to the books of the central office, division by division. By concentrating attention on one executive office at a time, visiting it, if necessary, frequently, to see that the instructions given take effect, and gradually transferring the accounts to the new books as they are brought up in the old, a few weeks will probably suffice for the transfer of even the heaviest divisional account; the Auditor's own office will also be gradually and methodically organised, and in four or five years the accounts of the department really placed upon a satisfactory footing, are inestimable benefit to all concerned. This may seem a long time to wait for reform, and perhaps we have made rather a large estimate, but it will be cheap at that rate; five years have already passed since the original change

was made which was to settle everything, and yet almost everything remains to be done.

Lastly, in order that a uniform system may be maintained throughout the Presidency, a central authority will be necessary, to control the proceedings of the provincial auditors, and to be the head of the department in the accounts branch. The same official would have the preparation of the budgets and the management of the general financial business connected with the Public Works. He would be subordinate to the Secretary to the Government of India, and the title of Deputy Secretary would best indicate his functions. For the next few years, until the new system is well established, the situation would be an onerous and important one, and with the constantly increasing financial business connected with public works, it would scarcely become less so hereafter.

We trust our proposals have been sufficiently clear, though we cannot hope they have been very interesting to the general reader. Briefly to recapitulate; we propose a Chief Engineer as at present, at the head of the department, but really an Engineer, relieved from the most burdensome of his present duties, in direct communication with the Government, and its medium of correspondence with the Supreme Government. A Deputy Chief Engineer for the larger provinces, actually deputed by the Chief to act for him with his powers.* Superintendents, men of some standing and experience over divisions which they can really superintend. Executive Engineers, with simpler duties and a more efficient because more organised office. An Auditor or Superintendent of accounts, subordinate generally to the Chief Engineer, but responsible for the duties of his office. Lastly, a Deputy Secretary with the Supreme Government for the financial and accounts business of the department. We conceive also, that we have shewn these alterations to be desirable.

We cannot quit the subject without a few remarks on the constitution of the Engineer establishment. The development of this, like most other services in India, has been gradual. Originally, or at least in the times of Warren Hastings and Lord Cornwallis, the earliest of which we can get any authentic information, the proceedings of the department partook of the lax character which distinguished those of the Indian and indeed the English public service generally. The usual mode of executing a work in the ~~past~~ was to commit it to an officer appointed temporarily to the duty, who received no salary but made his profits from the difference between the cost of the work and his

* The Chief Engineer should still have an Assistant, as at present, for however great the reforms made may be, there must always be a great deal of business detail to deal with in his office.

estimate, and we may be pretty sure that the latter was not framed too low. At Calcutta the Chief Engineer of the Army conducted the engineering works, and approved his own proceedings in his capacity of member of the Military Board. Later on, when executive officers or superintendents of buildings were appointed on fixed salaries, it seems to have been common for them to have a share in the contracts for their own works. This was apparently a permissible transaction, as we find it prohibited in future by a General Order of the year 1789. As time passed on the department gradually became purged of the impurities which in the last century infected every branch of the public service both at home and abroad, and for the last fifty years its proceedings have been conducted in the high spirit of honor which characterizes them at the present day.

The executive officers and assistants were at first principally taken from the Engineer Corps, the greater part of which from its first establishment has always been employed in civil duties during peace time. The Engineer officers had however no special training, they came out like other Cadets appointed direct to the service, and made choice of their branch of it after arriving in the country. When the Military College of Addiscombe was established, and the Engineers became a special corps, its ranks being henceforth recruited there, appointments to Addiscombe were made by nomination, and only a very low minimum standard of qualification was required for admission, but the appointments from the College to the different services were entirely by competition. From one-twentieth to one-fourth or one-fifth of the Cadets of each term gained appointments in the Engineers; the competition has always been exceedingly severe, while the standard of education has been constantly rising, till now with the exception of the Polytechnic* at Paris, the acquirements of the successful candidates are probably higher than at any other Military School in Europe, and, considering the youth of the Cadets, are certainly very remarkable. The successful candidates go to Chatham where they pass through a very excellent course of practical Military Engineering, and also a course of Civil Engineering which, though useful, is capable of being greatly im-

* Admission to the Polytechnic is open to a very severe competition among all the youth of France, the Cadets who enter it are therefore all well educated, and their general qualifications much more equal than at Addiscombe, where a considerable number never make an effort to compete for the Engineers. The newly modelled senior or scientific department at Addiscombe will probably not come far short of the Polytechnic. The system at Woolwich resembles that at Addiscombe, but the advantages of entering the Royal Artillery or Engineers are so closely balanced that many of the Cadets choose the former. The proportion of appointments given to the Engineer Corps is usually also larger than at Addiscombe, which tends to diminish competition, and, probably from these causes, the standard of education at Woolwich has been for some years much lower than at Addiscombe.

proved. On arriving in India, the young officers enter the department as Assistants, occasionally first passing a few months with the Sappers and Miners.

The Corps of Engineers, as already remarked, has always been numerically inadequate for its duties, and the want has been supplied from the Line. Many of the Line officers attached to the department have entered it young, and obtaining a fair practical proficiency in their duties in subordinate posts, have risen gradually to more important ones as they became qualified; but more often they have been placed at once in charge of divisions without having any previous knowledge, theoretical or practical, of their duties.

This anomalous way of providing for the department is of course a relic of old times when there were no public works worthy of the name, and when the practice of Civil Engineering was supposed not to require any special training. The Court of Directors certainly recorded their opinion on several occasions, that this anomalous system should be regarded as a temporary expedient to be altered as soon as it could be, and in this view the Corps of Engineers has from time to time received small augmentations, to render it large enough to manage the whole Public Works Department. The Court however seems always to have nourished an idea that public works were a temporary evil, that a time would come when there would be no more required and the department reduced, when all but Engineer officers might be set free for regimental duty. Thus in 1839, the Court sanctioned an increase in the Engineer Corps from 67 to 87 officers, under the hope* that, although they would still be 11 short in number for filling all the appointments of the department, "yet as some of these are temporary in their nature, on their cessation, and by a careful attention to the employment of the Engineers, the Government will be relieved in a short period from the necessity of confiding such duties to officers who have not been specially educated for this branch of the service."

Even Lord Dalhousie appears to have been infected with this idea that public works would soon have a definite end, for in 1852, in his minute on the subject, when alluding to the unsatisfactory state of the department from the paucity of Engineers, he observes that the completion of the Ganges Canal will soon set free several and thus partly meet the deficiency, as if all improvement centred and ended in this one work.

In spite however of a conservative policy, public works slowly advanced, and the number of persons engaged upon them increased. In 1840 the Engineers formed about two-thirds of the

* Letter of Court of Directors, dated 20th March, 1839

whole department, in 1850 they were a little less than one-half, and in 1856 they were less than one-third, there being seventy-one Engineers out of two hundred and forty men holding appointments. Of the remainder the majority were officers of the line (with a few from the Artillery) and the rest were Civilians. The Civil element was first introduced by Sir Proby Cautley on the Ganges Canal, from the utter impossibility of getting a sufficient number of military men for proper superintendence of his enormous works. The majority of the persons thus introduced were young gentlemen educated in the country, or who had come out in hopes of obtaining cadetships and had failed to do so. Several have thus served an excellent apprenticeship on the Ganges Canal and on the Punjaub roads and canals, where Colonel Cautley's plan of organisation was soon adopted, and latterly many of the men so appointed have first received a very fair education at the Roorkee College. It must be added that these gentlemen were placed on a very unsatisfactory and uncomfortable footing; their pay was very small, and an increase could be got only after painful application to the home Government; their prospects of promotion and pension were vague and uncertain; they were apparently held to partake of the "interloping" element, and altogether their position was much inferior to what their general attainments and services merited.

Later still a fresh element was introduced into the service, when the home Government with a desire to press on public works, (about the time when the renewal of the charter was under discussion) appointed a number of Civil Engineers direct from England, who entered at once on the footing of executives. Some valuable men found their way to India in this manner, but as these appointments were apparently left to the choice of individual directors, and no sort of qualifications seems to have been required, it would be strange indeed if all those so appointed had been of equal merit.

In 1856 however the question of Public Works was taken up in a truly enlightened spirit both by the home and Indian Governments, and under the admirable superintendence of Colonel Baker; the late Secretary, the machinery for developing their views was remodelled on a thoroughly liberal basis. The inconsistency of considering the uncovenanted and line officers as mere temporary occupiers of their situations, was abandoned, the certainty that the service would continue to increase instead of decreasing was first publicly admitted, and provision for its expansion made by an amalgamation of the officers of the department into one general list, with equal salaries, privileges and prospects. The class of Executive Engineers was divided into four grades, with gradually rising rates of pay, promotion through

which was to be made solely by merit, thereby giving a great incentive to zeal which was wanted before; and admission to the service was thrown open without restriction to both Civil and Military men of all grades, proof of respectability only being required in the case of the former, and a professional test from both. The department therefore now contains four classes of men; the officers of the Engineer Corps, officers of the line, Civil officers appointed in India, and Engineers who have been sent out direct; the last class will not be renewed.

We conceive these arrangements to be excellent as far as they go. To insist that Engineer appointments should be confined to those who had entered the corps at 19 or 20, and that every man, whatever tastes and talents he might afterwards develop for the profession, should be debarred from entering it because he once missed the opportunity, would be the worst kind of pedantry. The present scheme provides for the admission of all who have a real taste for the profession, while at the same time it prohibits the reckless abuse of patronage by which line officers used to get appointments, and really good men can now earn as a right what before was matter of favor. Equally glad are we to find the merits and claims of the Civil officers recognised. The new scheme is then a thoroughly liberal one, but we still doubt if it will meet the requirements of the time.

We have alluded to the examination to be passed before entrance. This, though very considerably easier than what the Engineer corps has to pass, and certainly not more than should be required from candidates, is still a tolerably stiff one; and what we doubt is that enough men will be found able to pass it. And first with regard to the army. The candidates from this source will be either from Addiscombe, or direct Cadets. If the former, they will have already been unsuccessful competitors for the Engineers or Artillery (we exclude the supposition of Artillery officers entering the department, as only a very small number can possibly be spared to do so) and are therefore not likely to succeed in acquiring much purely scientific knowledge afterwards, when they are removed from the emulation and discipline of a college, and are surrounded by the distractions of military life. Of the direct Cadets, the majority leave school comparatively young, certainly few sufficiently advanced in Mathematics and Mechanics to continue the study of them with success. Lastly, in both cases, another important source of elimination arises from the numerous other fields for distinction open to officers; civil and political employ, to say nothing of actual military staff appointments, will generally offer greater attractions to promising young men than the public works line. While then, we should strongly deprecate any lowering of the test for admission, as tend-

ing to injure the character of the service, we believe that the number of admissions from military sources will never be very numerous. The last two years have certainly been exceptional, from the pressure of military duty, but since the test came into operation we understand that no officer has succeeded in passing it.

With regard to the civil element the case is somewhat different. Undoubtedly there is no better opening in India for a young man not "in the service" than the department we are treating of; it is far better than the uncovenanted civil service or the customs, the pay at starting is sufficient for comfortable support, the profession is of an engaging, not to say fascinating kind, and promotion waits on merit. This branch of the service will therefore attract in future most of the young gentlemen in India who are seeking for a livelihood. But this class will always be very small, and those who compose it are not likely, from the very fact of being in India, to have had the best advantages in education, therefore the number of admissions to the department from this source can never be large. Hitherto it has been customary to appoint all who have succeeded in passing the minimum standard; in this way there have been about three or four admissions a year, usually from Roorkee, and these form such an admirable provision for the sons of officers who cannot not get commissions, that we hope they will always continue to be made in the same liberal way, especially as men on the spot may be held to have a kind of prior claim to disposable patronage. At the same time we may observe that with the means of selection available in England, this would not be the best way of filling up the whole department.

If on no other ground then, simply from the absence of other means, an extension of the Engineer Corps comes to be the best available vehicle for supplying the wants of the service. But this is the lowest ground to take. Theoretically indeed the whole department should obviously be supplied from that Corps alone. If it be admitted that the service of engineering requires a high standard of proficiency and acquirements, and when men who possess that can be got by severe competition to any extent required, it does seem at first view most short-sighted policy not to avail ourselves of it, but to apply it to the extent of about one-third of our wants, and to supply the rest comparatively at random. Yet this is just what has been done hitherto. With obvious means of recruiting the Engineer department in a most efficient way, they have been only partially adopted, and a confessedly secondary makeshift channel used instead. At the present time, the Engineers' corps forms less than a third of the department, and this when strained to the utmost; the Military wants of the service having been sacrificed to the Civil, and the

Corps of Sappers and Miners reduced to inefficiency from the want of officers.

But on the other hand we should be sorry to see this reasoning have its full force, and the department ever made a close service. There should always be room for the admission of any line officer who exhibits a taste and talent for the profession. Such men entering it at mature age from sheer love of the work, as some have done, will always be valuable additions, and any system which made their admission impossible, would be bad. Also the mixture of the Civil and Military elements is likely to produce a wholesome spirit of emulation with the department. All close boroughs are bad, and any body of men, no matter how carefully they are selected in the first instance, is liable to become rusty if left too much to itself. Every one has observed the healthy stimulus which the Civil Service derived, by the introduction of Military men into the Punjaub Commission. Therefore we conceive a perfectly open service to be the best one for the Public Works Department. But as already explained, the *majority* of the men required can never be got in India in this way; the field of supply is too small, nor would it be desirable to entertain more than enough of those who can just pass in to keep up the miscellaneous character we have recommended; the majority should evidently be got from the best market, especially as they all cost the same. At present, it must be remembered, there is a large number of men who entered under the old lax regime, without any claims or qualifications. This door is now closed, and as these men pass away, there will be none to supply their places. The number of those of a *similar* class who will be able to get admission under the new test will be, as already explained, but limited. The only plan therefore is to get a supply from home.

Addiscombe offers the means of supplying the want. The number of Engineers which that College could turn out annually, used certainly to be limited, and bore a tolerably fixed ratio to the number of Cadets trained at it; if that ratio were exceeded the standard would have to be lowered. But under the new arrangement by which the Cadets have to compete for admission, the standard of acquirements will be generally much higher than at present, and the number who will qualify for Engineers will be greater in proportion; it will be practically unlimited, with reference to the number of vacancies to be filled in India. Or, in place of choosing from Addiscombe, a class of young Civil Engineers may be elected. The home authorities have apparently determined upon the latter plan. A late advertisement in *The Times* announces that on the 10th May last, a competitive examination would be held for twenty-four ap-

pointments to the Indian Engineer' Service. This is the first germ of a new Corps of Civil Engineers, which appears to be called into existence chiefly from the restless desire of novelty in education so actively exhibited in England at present. We believe the step to be an entire mistake, and we proceed to give our reasons.

* The rules relating to these appointments prescribe that the Candidates must be under 22 years of age, and have served at least three years under some Civil Engineer; the examination comprises Algebra and Geometry in the Mathematics, Mechanics, Surveying, Plan and Architectural drawing, preparation of estimates and specifications, the drawing up of projects for engineering works, and lastly English and Anglo-Indian History and Geography, for which four subjects together fewer marks are given than for any other subject alone. The total number of marks in all is 1000, and 600 marks must be gained to qualify. The first 24 of those who gain more than 600 will be appointed in order of merit, and will be allowed choice of Presidency, provided that not more than 12 proceed to Bengal, and not more than six to Madras and Bombay respectively. They are required to sail within six weeks of being appointed; they are provided with free passages and receive pay from the date of sailing at the rate of 170 rupees a month. On arriving in India they will be sent to one of the Colleges of Civil Engineering, to acquire a knowledge of the language, and to receive further instruction in their profession. On being reported qualified by the Principal of the College, they will join the department.

We may observe in the first place that the test for qualification is considerably lower than that required from Candidates for the Military Corps of Engineers; this is doubtless necessary, for only those educated in a first rate School would be able to undergo it; still the fact remains that the men coming out in this way to be admitted to the department on exactly the same pay and privileges as the Military Engineers, have got their appointments on easier terms. Secondly, we think the test may be objected to as being of too purely a professional character. The marks for drawing and surveying, to a great extent mechanical accomplishments, form a large proportion of the total; a person may therefore stand very high whose general education is of a very limited nature, or indeed who has had *no* education, in the proper sense. * At Addiscombe not only are the Mathematical tests much severer, but languages are fairly represented, and the Natural Sciences have a place.*

Again, the rules provide that Candidates must have serv-

At Addiscombe, however, the Education is of too special a character.

ed three years in a Civil Engineer's office. Now no Civil Engineer is likely to recommend his best pupils to leave him; he looks to them to become his assistants, and the young man so situated who gives promise of future excellence in his profession, is generally provided for by his master as soon as his articles have expired. We shall therefore only get the second best men whom the Engineers do not care to retain at home. The age of the Candidates is another objection. At twenty-two a man has generally a pretty good notion of his own merits, he has had time to compare himself with his fellows, and to estimate his chance of success in life, and a man who feels within him the capacity for a career at home, is not likely to be tempted to India by 170 Rupees a month and a free passage. We have proof for this in the Civil Service, the competitive examinations for which have failed as yet to attract a single distinguished scholar from Oxford or Cambridge; though the prize is so much higher, the heads of the list have been usually men who have either failed to get honors at all, or have taken the questionable ones of *Senior* or *Junior Optime*.

In fact, to obtain first rate men for any branch of the Indian service, which offers none of the grand prizes to be gained by successful services at home, it is essential to choose them young, before they have found out what they are fit for themselves. Only lads care to enter the navy; at sixteen an appointment to India is often thought a fine thing; but at twenty-two a clever man will probably regret in his exile that he did not stay to take his chance in the battle of life at home.

Another cause to deter many men from competing for these appointments will be the fear of failure, and its concomitant loss of reputation. At Addiscombe there is nothing of this, since those who fail to get the Engineers are provided for in other branches of the service, but here there is no alternative offered between success and disgrace.

The proper way of securing the best talent for the Civil Service would be to hold a competitive examination for admission to a College like Haileybury, among lads of from 15 to 17, and to give appointments to all of these who gain admission who may succeed in passing a severe *minimum* test after a couple of years or so spent there, and lest the risk of failure to pass this second examination might deter some candidates from coming up to compete, the unsuccessful collegians might receive commissions in the line. Similarly if the appointment of young Civil Engineers is to become a regular thing, in preference to excluding Addiscombe, a far preferable plan to the present, would be to select them by a *general* educational test, when boys, and either to apprentice them for a term of years among

different Civil Engineers, or to organise an establishment for their instruction together. By such a system, and by such a system only, will a really efficient body of Civil Engineers be ever obtained for India, and even then they will be inferior as a class to the Military Engineer, for the simple reason that the prospects and advantages are greater in the one case than the other. The pay of the two classes is certainly the same, but the commission which the one holds is in itself a prize of no mean kind, and will always make the military service the most valued of the two. Independently of the military rank which is a tangible reality, there is also the chance of military distinction and honors, distant and uncertain, it is true, and seldom realised, but it is just these distant prizes which human nature finds so attractive. Not one barrister in two thousand becomes Lord Chancellor, not one in a hundred becomes a Judge, but strike off the Bench, and how many men would enter the bar? In our argument we have said nothing of the value to a Government of the *esprit de corps* in a body of its servants, of the value of that honorable pride engendered in a service which has never been wanting to the state either in war or peace, and which shares with its sister service, the Indian Artillery, a reputation unsurpassed by any Military Service in the world; these feelings and associations are not to be acquired or purchased, they are a noble heritage to be transmitted unsullied and undiminished from one generation to another, and they give the possessors an inestimable advantage over any other body of men, their equals in other respects, but wanting this bond of union, and these ennobling associations. Setting these considerations aside, however, and arguing on mere utilitarian grounds, we maintain that unless the value of military rank is made up by a rate of pay not far short of that enjoyed by the Civil Service, the class of men that will be forthcoming under the new system will be assuredly inferior as a class to the Military Engineer, for the simple reason that the service will be a less attractive one.

It may be objected to our reasoning that there are distinct duties to be performed in India, which call for the separation of the Civil and Military elements. Further in connection with this view there is an opinion frequently propounded, though in a vague and shadowy way, that Military Engineers are by the nature of their employment disqualified from the management of Civil works, and as a good deal has been said about this lately, particularly in the late report on Indian Railways, and as the speakers have been hitherto unanswered, it will be as well to examine the question. Now, setting aside altogether the class of men to whom every educated gentleman is a standing reproach to themselves, we believe that this mistaken impression arises

partly from the irregular and often unsatisfactory manner in which even the better class of Civil Engineers are brought up to their profession. From the want of a good scientific foundation on which to rest their practical knowledge, the acquisition of the latter often becomes a matter of painful labor, and each fact acquired is regarded as an isolated acquisition leading to nothing else, from the incapability of such a mind for generalization. What is so difficult for themselves they conclude to be equally difficult for others; they conceive that because they have with difficulty mastered a special branch of a special subject, it must be impossible for others to do more. "We," these gentlemen argue, "know nothing about building forts, how then can those who do build forts, know how to do any thing else?" To say nothing of the transparent fallacy in the reasoning, a reply is suggested by the foregoing remarks:

Another reason for this mistaken view lies in the ambiguous meaning given to the expression "Military Works." If by this term are meant the buildings prepared for the use of *Military men*, or the roads and bridges which connect *Military Stations*, we should be glad to know in what respects the constructive principles of such works differ from those of ordinary Civil Engineering. We imagine that the principles involved in the construction of a roof are pretty much the same, whether it be intended to cover a barrack, or a warehouse, and that the merits of a road are not affected by the question whether it is undertaken for political or commercial considerations. And if to be engaged on Military works, taken in this sense, debars a man from the right of being considered a Civil Engineer, then most of the eminent Engineers of the day are in this predicament, from having been employed by the Government for such works at some period or other of their careers. And yet, from sheer laziness of mind, some such ideas are often entertained. Colonel A. designs and sets up the elaborate machinery for boring guns in Woolwich arsenal, and Mr. B. that for turning blocks in Chatham dockyard, yet forsooth the one is a mere Military Engineer, other a distinguished Civil Engineer.

If, on the other hand, it be urged that the Military Engineers are actually engaged in Military duties which take them away from engineering pursuits proper, the refutation is made by a simple reference to facts. At the present time, out of 120 officers composing the Corps of Bengal Engineers, seven are actually engaged in Military duty. In fact the corps is, and has been during the last forty years, entirely engaged (with a very small number of exceptions as in the present instance) in Civil Engineering duties during peace time; to draw a distinction therefore between the professional duties of the Civil and Military Engineers employed in this country, is mere balderdash.

It may perhaps be objected that the present state of things is exceptional, that the efficiency of the Military service has been sacrificed to the exigencies of the state, and that we are describing what is, instead of what ought, to be. Unquestionably the present system has been carried too far, and the neglected state of the Sapper Corps calls loudly for reform, but it is altogether a fallacy to suppose that there is any military duty in peace time calling for the presence of a large body of Engineers. The fact is that Military Engineering proper, as distinguished from Civil Engineering, that is, the mere technical details of it which are not met with in ordinary constructions, are all to be learnt in two or three years of industrious study. It is in short in its present state a *finite* art, the end of which is soon reached, and a clever man will know as much of it in five years as in fifty, during peace time. This indeed may be said of every branch of the military service. There is nothing in the *technical details* of it that may not be acquired by any man of ordinary intelligence in five or six years; after that, he spends the rest of his time, like a farrier or a cobbler, in doing the same thing in the same way over and over again, year after year.

Real experience in the military profession can only be gained in war; one month's campaigning is worth a dozen years of parades, and he is the real veteran who has seen most of battles, not he who has the greyest hair. This is peculiarly the case with Military Engineering in which all men must start as tyros. Still, Military Engineers, must be kept up in peace to be in readiness for war, and must be prepared in the best way that peace time admits of; and for this purpose, after the elementary principles of the science are acquired, there is nothing better than Civil Engineering, since it involves a constant practice in getting over much the same kind of difficulties as occur in war. So likewise the Civil Engineer will find in war the finest exercise for all his skill and talent, and an occasional campaign will amazingly sharpen his powers of resource.

Then, it may be said, would not the most efficient establishment consist rather of a body of Civil Engineers, sufficiently disciplined to act together, and trained in the elements of Military science, than of a special military body organized and employed only as such? Precisely so; and such a body, military in war, civil in peace, far too small indeed for the duties required of it, but admitting from its organization of indefinite extension, and paid partly in money, but partly by rank and by the honor of sharing in the reputation of the service to which they belong, such a body is to be found in the existing corps of Her Majesty's Indian Engineers.

- ART. VI.—1. *Report of Her Majesty's Civil Service Commissioners.*
- 2.—*General Orders of H. R. H. the Commander-in-Chief of the British Army.*
- 3.—*Regulations for conduct of Examinations for Appointments in the Indian Civil Service.*
- 4.—*Middle Class Examinations.*
- 5.—*General Orders of the Governor General in Council with regard to the Examination of all Junior Members of the Civil Service.*
- 6.—*Papers on the subject of the Instruction of Native Employés in the Civil Department.*

EXAMINATION is the order of the day; it is the particular feature, perhaps snare, of the last half of the nineteenth century. In its two developments, either as competition based on a maximum, or qualifications based on a minimum, it has gradually inserted itself into every department of the State, civil or military, home or colonial. We expect before long that the principle will invade even domestic privacy, and that servants generally, partners probably, and wives possibly, will be selected with reference to tests, evidenced by certificates, and that all mankind in the great arena in the world will be docketed as good, indifferent, or bad: a great many false outward shows will no doubt be unmasked, but on the other hand much modest, but impractical, merit will thus be trampled on.

We are of that party who never oppose the idea of the age, so long as it not opposed to morality or religion. The real revolutionist is your obstinate conservative, who, by opposing inevitable progress, brings on a catastrophe:—by floating on the advance wave of reform and progress, but with the rudder firm in hand, much may be done to prevent a popular idea being exaggerated into a burlesque, or shrivelled up into a dry form. We cannot lay this monster, which is the result of the educational fervour of the last fifty years: let us try to control it. We may find a good servant, where there would certainly have been at bad master.

Is competition then a snare? Is the trouble taken by Government to secure qualified employés thrown away? Have the fool, the inert, the nephew of my uncle, the brother of my wife, the good sort of young man to whose relations I am indebted, the fellow who plays the flute, the younger son who has outrun the constable, a monopoly of the good things of office? These are the

questions before us : if you deny the right alluded to in the latter question, you must affirm more, or less, the principle laid down in the former, for there are but three roads—seniority, patronage, merit. Now seniority implies a beginning from one of the two other sources, it can only deal with men in office, and no Government could be carried on on its principles only. Patronage soon degenerates into nepotism ; it has almost become synonymous for it. Merit can only be ascertained by some sort of test, that of examination for aspirants, and of practical official life for employés.

There is nothing new under the sun, and the opponents of the new principle, failing in argument, have been glad to attack it by making it appear ludicrous ; and a volume upon the Chinese, published by Mr. Meadows in 1856, in which one finds scores of things discussed which have no connection with China, gave them the opportunity. It appears that in China there is a regular system of examinations for public posts, which are in consequence monopolized by a certain literary caste, and moreover the tests are not practical, but dogmatical. Commissioner Yeh boasted that he knew “ Taoli,” and that that was enough. Now this is the exaggerated phase of the system, and is useful only as teaching us what to avoid.

At any rate the idea was not borrowed from the Chinese : if ever there was a popular movement, it is this. In every society, in every variety of human affairs, there are always two parties—those who are in, and those who are out ; only a certain portion of mankind can enjoy the good things of the world, and to those who are in possession it appears the simplest thing that this should be the case. But to those that are out of possession, it is always a mystery, a grievance, and a secret thorn, and periodically causes a great up-heaving of discontented spirits. In former days the “ out ” party were content to do their best to get themselves “ in,” but the spread of education has produced another cry, and at a meeting held in London in 1857, under the patronage of the Prince Consort and the President of the Educational Board, it was openly asserted that it was a right of the people to have all posts under Government thrown open to public competition, and the abuse of Parliamentary influence once and for ever abandoned. The beneficial effect, which such a measure would have on the spread of education, was mentioned as an incidental advantage, but the posts under Government were claimed as the inheritance of England’s sons, without favour or prejudice, and it was pointed out that Government would be better served by the introduction of better men.

Many things have combined to strengthen the general feeling :

the disasters in the Crimea exposed beyond power of defence the unsatisfactory mode in which appointments in every Department in England were filled up; the increase of Parliamentary corruption was traced to the same cause:—unfit men were appointed, because a pressure was brought to bear upon Ministers by their supporters. At the same time the patronage of India had to be disposed of, and a very different cause produced, the same result. By degrees the Army has been infected, and all the professional branches have been thrown open, and, if this state of things continue, for the fools who are now in course of gestation, or who are still under age, it will be no easy matter to win a living, for hereafter if a man's wits do not help him, he may be pretty certain that his friends cannot. Now as it is a received fact that every family has one fool at least, if not more, we must expect that there will be a large body of malcontents with the new idea.

But there is no peace for the wicked, even after they have entered their profession; for the spirit of the age has not only embittered the sweets of a nomination by insisting on a certified efficiency, but it has fenced round promotion in the junior grades in a most insufferable way. The Commander-in-Chief in England, and the Governor General in India, have done this wrong to the Army and Civil Service, and most unpleasant and irksome it is to have to study, when a few years ago the only duty was to draw pay. But as yet open competition has not invaded the ranks of any service, and a minimum qualification is still deemed sufficient, but in a speech last year in the House of Commons Lord* Stanley, who, if his life be spared, is destined to exert a great influence during the next quarter of a century, openly asserted, that “he had great faith in the system of unrestricted competition: though of comparatively recent origin, it had steadily made its way: every year brought over some new converts from the ranks of those, by whom it had been at first opposed:—he believed that it would prove itself eventually to be stronger than all Parliaments and all Governments, superior in short to all the influences which could be brought to bear against it.”

So think we also:—and this has induced us to place before the public what has been done in this matter, and some remarks on the advantages which may be expected therefrom.

At the time when England was excited by the mismanagement in the Crimea, a motion was made by an independent member of the House of Commons, Viscount Goderich (now the Earl of Ripon,) on this subject, but was not pressed, as the Government undertook to make a forward move themselves, and accordingly an order in Council dated May 21, 1855, was passed, appointing a Civil Service Commission to conduct examinations of all young men propos-

ed to be appointed to junior situations in the Civil Establishments. Nomination was to remain as before with the heads of departments, but dependent on a certified qualification, and moreover a period of probation would be passed in all cases, during which conduct and capacity were to be submitted to tests. Provision was made, that when persons of mature years and *special* qualifications were appointed, the Chief of the Department must formally record the fact, which would justify an exemption from examination. In March 1856 the first Report of the Civil Service Commissioners was presented to Parliament, and the copy is now before us. Their report most entirely justifies the measure, and it presents a curious insight into official life, and a sufficient exposure of official prejudices. The Commissioners had great difficulties to contend with in their desire to keep all departments in harmony, for, though the Chiefs were all with them, the hungry underlings with their imperfectly educated sons and nephews, opposed, as far as they dared. The cry was raised that there would be a risk of not getting such gentlemanly men, and that school proficiency was not the only test: this was especially amusing, as the very same cry was raised by the opponents of the principle of competition as regards the Civil Service of India; from which we gather that all those who are in possession of place and power, are, by courtesy of official parlance, gentlemanly. However the small end of the wedge was got well in, and out of 1078 persons nominated to hold places under Government, 309, or nearly one-third, were rejected, for bad spelling, bad writing, and bad arithmetic, and the Commissioners in the appendix supply some charming specimens of the proficiency of Parliamentary nominees. They remark, "that the frequent occurrence in candidates of deficiency in the simplest elements of knowledge arises from the fact, that many of the inferior appointments are made without personal knowledge of the fitness of the party, on the recommendation of some person, who is desirous not of supplying the public with a useful officer, but of making a competent provision for a friend." This reads like bitter irony and hidden satire.

The order in Council expressly excluded competitive examinations, confining the measure entirely to the certified minimum, but some of the Chiefs of Departments were more liberal than the collective Council, and Mr. Labouchere, the Secretary for the Colonies, expressed a wish that when vacancies occurred for a writership in Ceylon, several candidates should contend, that the best qualified might be appointed. The Commissioners remark that both in the competitive examination for clerks in their own and other offices, those who had succeeded in obtaining the appointments possessed higher attainments than those

who had come in on nomination, and that if it were adopted as the usual course to nominate several candidates to compete for each vacancy, the expectation of the ordeal would act most beneficially upon the education and industry of those young men, who were looking forward to public employment.

These examinations were conducted both in London and the provinces: the age of candidates was fixed with reference to the nature of the duty: the health was certified by a Medical Officer, and the character by some respectable person, but the responsibility of this last most difficult subject rested with the head of the particular department under the system of nomination. Each department submitted their own scheme of examination, yet in the opinion of the Commissioners, after making every allowance for difference of standard, a common ground for one general examination might be attained, which should be indispensable to all, and which should serve as a species of matriculation, tending rather to exclude candidates who do not possess necessary qualification, than to designate absolutely the candidate considered to be best fitted for a particular vacancy. All that the Commissioners require of the candidates, and really they could not ask for less, is

- I. To write a good hand.
- II. To spell correctly.
- III. To write a simple letter grammatically.
- IV. To be conversant with the elementary portions of Arithmetic.

The "specialités" of each department would only be enquired into, when the indispensable qualification standard had been reached. We really think that the Commissioners could not have required less, and might well be blamed for not having demanded more, of the elegant and dapper young men who fill the public offices in England. They certainly are not paid highly, nor do they work very energetically. We have viewed with admiration, in some of the public offices, the calm and self-satisfied air of the official, the smoothly shaved chin, the neat necktie, the irreproachable costume, the easy way in which he turns over the leaves of his book, or deigns to commit his views to foolscap, with occasional refreshment from his sandwich box, a glance at the broad sheet of the *Times*, or a chat with his neighbours in the adjoining curtained partition, and we wondered how such a man would comport himself, if his destiny had doomed him to grow a red beard, while hunting down rebels in Oudh, or to sit in shirt sleeves with the thermometer at one hundred, judging the subject millions in the Punjaub. We confess that we have been puzzled in England to find out exactly the limit betwixt the mere copyist, the Baboo of the

Indian office, and the intellectual workman. In India, the official, defined as a clerk, is, however respectable, admitted to be socially inferior, can be sent for, and, if necessary, kept waiting, but the roughest and readiest of non-regulation officials could not have the heart to keep standing, or speak curtly to, one of the gentlemanly young clerks of the home offices.

We now proceed to notice briefly the General Order of the Commander-in-Chief on the subject of qualifications. There can be but one opinion on the merits of this order, that when a young man has entered a profession, he should qualify himself for the proper performance of his duties, and as human flesh is weak in the Army as elsewhere, the only way to test that qualification is by examination, which is to be strictly practical and professional, and to take place on the occasion of rising from one grade to another. There is no pretence that an officer should be a bookworm, or a scholar, or a mathematical genius: all that is required is, that he should be in reality, as well as name, a soldier in the same sense as his contemporaries are lawyers, clergymen, and sailors. It is an index of the perverted state of public opinion in some quarters, that even this proposition encountered opposition. Louder and deeper were the expressions of dissatisfaction against the rules with regard to filling up all staff appointments in future. The exposure in the Crimea has at least been productive of some advantage.

We pass over with a brief notice the movement made by the Universities in favour of what is called Middle Class Examinations, and the examinations held by the Society of Arts. However much they are abused and laughed at, they will not be laughed down, for their object is to certify merit and qualification. The great majority of the world are not dispensers of patronage, and they know not therefore the pressure brought to bear by interested parties, and the difficulty experienced in selecting fit men. A young man has no antecedents to refer to, and he has but his ingenuous countenance, and the too partial recommendation of his instructor, to bring forward, until these opportunities were offered him of submitting his qualifications to the test of an impartial examination. It is another strange sign of the times, that such benevolent and unselfish exertions in the favour of friendless youths should have encountered censure. The only real objection is a political one, and one which is honestly entertained by those who regard the movement from a different point of view. They dread the disturbing effect on the national character, they deprecate the idea, that the poorer classes should be tempted to leave their own sphere and their own callings, and consider a petty Government office as the summum bonum of existence. No measure indeed could be more degrading to the

independent spirit of a nation, than that the posts of clerks and tidewaiters should have the character of an order of merit. We know how completely the independence of the French people has been swamped by the legion of small civil posts in the gift of the Minister, and in the East Indian community we have another notable instance of the degeneracy, which is the heritage of a race which has nothing but official servitude to look to, and the monopoly of suckling clerks, and docketting despatches. However the object of these voluntary examinations is different: they are correctly described, "as mere matters of business, and 'it is simply proposed to find out, and certify who are really 'educated for the duties of certain known positions in life."

We turn now to India. We have dwelt so long upon purely English subjects advisedly. We are of those who believe that the mother country furnishes the very best example to us, that the more Anglicized we are, and the less that we have of Anglo-Indianism, the better. In every measure we seek for the freshness of the English opinion, and not the prejudice of the Indian bureau. We really regard with pity those amongst us, who have never visited England for a quarter of a century, and who are as antiquated in their ideas as in their shirt collars. It should be the policy of Government to insist upon a furlough being taken by its servants after each decade, and on the veteran making his bow when he has served his time. It is positively as dishonest for a Civilian to cling to India after his term of twenty-five years is past, as for a lessee to refuse to vacate a house when his lease has expired.

Now as regards the subject of examinations in India, we have the great advantage of the example having been shewn by the Government of England. In spite of the inveterate nepotism of the upper ten thousand, and the deep-set corruption of constitutional Governments, the battle has been won; the qualification minimum has been asserted, and the competition maximum talked about. The necessity of a probational term after appointment, and the demand for increased proficiency at each grade of official rank, have been established, and specially in the Foreign Office, as regards attachés, and consuls. In India we have no permanent interests to combat, no electioneering services to reward: we have the pick of the native educated classes looking to nothing better than State employ: if Government will but prescribe the rules, there will be no trouble in carrying them out.

And as the higher offices of the State must in a conquered country be held only by genuine Englishmen, the Imperial Parliament have decided, that in the Civil and Medical Departments the annual vacancies shall be filled up by open competition of the flower of the English youth. Since the assumption of the Govern-

ment of India by Her Majesty, the Civil Service Commissioners, whose report as regards the Home Civil Service we have noticed above, have been entrusted with the duty, and we have their regulations before us.

No mere pedagogues, or Assistant Secretaries were consulted on the best mode of churning the intellect of England, and extracting its cream; no narrow "curriculum" was fixed, neither a happy knack of stringing together Latin Hexameters, nor a stupendous and instinctive grasp of figures and symbols, (which is one of the most wondrous gifts conceded to man) nor a facility of appropriating a foreign idiom and pronunciation, nor a power of philosophic reasoning, were to be the sole stepping stones to success: by a nice graduation, and careful valuation of each particular accomplishment, it was hoped to discover in what quarter could be found the good intellects, improved by good education. A limited number will be selected according to the number of marks which they obtain, and at the end of a year of probation they will have to undergo a second examination in the specialities of the service, into which they have been introduced. The subjects, in which they will be examined are four. I. Oriental Languages; II. History and Geography of India; III. General Jurisprudence and Indian Law; IV. Political Economy. Those who pass this second test, and have reached the age of 24, and satisfy the Commissioners as to their being of sound bodily health, and good moral character, will be admitted to the Civil Service of India: one only omission is that every candidate should have to pass through a Riding School.

The second test will be applied from the present year, but already numbers have arrived who have passed the first test only, and present a marked contrast to those who came out under the old regime. No impartial person can doubt as to the success of the scheme. Though not born in the purple of Leadenhall Street, or sprung from the loins of a Director, we admit in our own case the original sin of nomination, and we regret it. We could have wished to have deserved, as well as to have borne off, the palm. We look with unmixed satisfaction on the

"Juvenum recens

"Examen, Eois timendum

"Partibus"

and of the detractors of the new birth, and the fond regretters of the old families, we ask;—"cet sang etait il si pur"?—is there any virtue in a clique of relations spreading over a country? Look around, and mark how some families have sat down like locusts, on a province, how every official change indicates a move on the family chess board: even the miserable pawns, which were only

meant to be taken off, are pushed forward into places where they never ought to be, were they not covered by parti-coloured knights, or smiled upon by queens. Are men the worse because they have graduated at the University, or been called to the Bar; because their intellects are strung and their faculties developed? Must India be governed by a succession of lads brought up under a coop, and thrust unfledged into the market, trained in the narrow groove that suited the views of the examiner or the trainer, instead of the broad groove of the intellectual education of the day?

Under the old system it was a strange sight that met the gaze of the youth, whose career was suddenly diverted from the great arena of the English world to the narrow path which is trod by the Indian Civilian? What a strange collection of half-men half-boys were assembled at the India House to undergo, what appeared to a public school boy a farce, but to many there present was a serious passage of arms? They appeared with their trainers, and knew a little of everything. Then came the more lengthy farce of Haileybury, where men were by courtesy styled "Highly Distinguished," who certainly have never been considered so since. Lastly the mockery of the College of Fort William, which was only passed when the student had become indebted to every Calcutta tradesman: he then proceeded up-country, and found to his surprise, that he had every thing worth knowing to learn.

And perhaps (but we write doubtingly) those who have thus entered into the land of Goshen by their own merits, by the test of election, will be inclined, as far as in them lies, to war against the prevailing sin of the age, nepotism. They have tasted themselves of the sweetness of bread earned by their own labours, let them not deny it others. It seems so just to provide for relations, forgetting that it is well to do so from your own resources, but not at the expense of the public: this is the weak side of most men, but we have no patience with those, who exercise their amiable feelings of pity, charity, and general benevolence at the cost of the people, while the credit attaches to themselves. The evil is known in many phases. A late Commander-in-Chief openly stated, that the patronage of the Army was his private property, forgetting that it was a public trust. A late Governor in his farewell address, said that he had never attended to the claims of patronage, yet his warmest admirers admit, that they could not have said so for him: he used to say that it was not an abuse of patronage to provide for relations, if they were fit: but are they fit? that is the rub. As it is now, with each new local potentate up springs a new clique of relations: sons and daughters marry, and the Gazette notes the

fact, as well as the column of domestic events: men get promotion, because their wife is sister to the wife of some body at Headquarters—degrading for him, if he has any proud feeling of self-esteem, and depressing for the enthusiastic and hard working man who has no friend at Court. At one time every body in a locality answered to the name of “Mac:” at another time you might fancy, from the prevalence of the Doric idiom, that you were in Tipperary.

We write not as those who have a grievance, who have been disappointed in the battle of life, and therefore look at snug family arrangements with a jaundiced eye; but at the commencement of a new system, we write deliberately, that there should be a self-denying ordinance: if there is any merit in Government from home, it should be to destroy class interests, to place Trojan and Tyrian on the same level, to polish by instruction, to test by examination, to promote by merit; to eliminate the fool, the dotard, the worn out, and hoist the flag of “Detur Digniori.” If a close service is allowed to continue, it must be so, only because it is fit to do so. Recruited by competition, kept up to the mark by periodical tests, encouraged by judicious patronage, it should be weeded by the compulsory removal of those who are fit for nothing, the very halt and lame of the profession. Pity them not. Every profession abounds with such men, but they do not bear the light—they shrink away into obscurity. Who pities the high and dry Divine, the bloated half-pay Captain, the briefless Barrister? We have swept away the sinecure, but left the men eminently calculated to fill such posts, and no other: out of every ten there is at least a third “fruges consumere nati,” and we have heard a Governor express the very great difficulty which he had to provide for such men. The Punjaub has flourished, because the system of Government is strictly eclectic, and because the Governor was strong enough to eject every man who failed to maintain the required standard, and because he had then an abyss into which he could plunge his rejected, namely the Agra Government, and the native line regiments. How matters will now be managed, we are anxious to know, when each factory will have to consume its own smoke?

Vested rights are no longer spoken of, and there is a subdued feeling on the subject of the claims of seniority. Matters are changed since the time of that famous Civilian, who offered to compromise with the Court of Directors, and take £500 per annum to do nothing in England, instead of £1,000 on the same terms in India, thereby being a manifest benefactor to the people of India. But in truth we believe that the time is come to throw open the service entirely: it is not wise to make another

close guild, and shut out men of mature intellect, and approved capacity in other walks of life, who find that India is their calling. We instance especially barristers who have acquired the language, and merchants, but there must necessarily be a limit with regard to age, and, as is the case in the English offices, such an appointment must be made very deliberately, on certified qualification. To those public servants who have a real interest in their duties, how welcome would be the co-operation of men with wider experience, more special knowledge, and enlarged English views! For one class of public servants the new order of things will be fatal: we allude to the present uncovenanted employés, who are for the most part educated in this country, or East Indians by birth. They have helped to raise a storm, and will be caught in the whirlwind: as long as the ranks of the Civil Service were recruited by patronage, and as long as seniority kept all to a dull level, there was room for a grievance, and a semblance of liberality in the proposition to substitute alleged efficiency for certified inefficiency. But the class of men whom every ship now lands in India, owe nothing to favour:—they are strong on the very points in which the uncovenanted thought themselves strong, and strongest where the uncovenanted are necessarily weak—in the advantages of English education. If these men are kept up to their promise by periodical tests, and promoted by merit, it will be a hopeless task to compete with them, and the more that India is governed from home, the more numerous will be the supplies of men qualified for employment. As yet the value of the appointments, and the nature of the duties, are but imperfectly appreciated in England: the cotton of the Company's bales still sticks in our beard, and socially the Indian employé has to yield to his brothers in the English Bar or the Church, though the advantage is on his side as regards income. But this cloud will soon clear up, and things will appear as they really are.

In the dawn of life what visions float before the youth, at that halcyon time when his intellect is expanding, and the treasures of his mind are being unlocked! The world with all the good things, to be dug out by perseverance, to be ravished by talent, and proudly won by success, is at his feet. At one moment float before his fancy the quiet and lettered retirement of the manse, the porch covered with honey-suckle, the loving helpmate—*his* in his youth before years have added to his material wealth, but diminished the intensity, the foolishness, of affection, for we love not in after life, as we loved then:—a vision rises before him of children, like olive branches round his table, his pride, and his care; of labours of the week among his people in their homes, or in the church on the Sabbath; of

a quiet, world-forgetting path, leading under the shade of trees to happiness and to God.

Or he may labour to win applause in the senate, or gain a name in the Forum—dearly, sadly bought: how many an hour of hope deferred, of drooping melancholy, of painful labour, of penurious want! but all forgotten. No—all friendly, thankfully remembered, when the name is won, or the eye is closing in death. Or he may abandon his native country, and go forth, as many have gone before him, to rule people and subdue them, to spread England's arts, and England's laws, and England's virtues. Thrice happy! could he but appreciate at its real value his own glorious vocation! We read in Tacitus, and in Cicero, of those Romans who abandoned the smoke and wealth of Imperial Rome, let fall the toga from their shoulders, flung the pilum from their hand, turned their backs on the Baths and the Circus, and went forth to rule the Daci and the Egyptians, the dwellers on the far Euphrates and the Orontes; who bridged streams and composed the strife of nations, taught subject peoples to bow to the rod and find it a blessing. To have done thus, and died immaturely, was better far than to have spent long days lolling in the Biga down the Alban Way, or drinking wine before sunset at Tibur or Baiæ!

Such are they who now labour in India. They envy not those who fill at the curule chairs, or return home exalted by bloody triumphs; for their profession is to be missionaries of order and peace. From their earliest day they learn

Certare ingenio, contendere nobilitate,

Noctes atque dies magno certare labore,

Ad summas emergere opes, rerumque potiri.

From their youth upwards they are in possession of that amount of moral and material power over their fellow mortals, which falls to few in Europe. Power, patronage, the means of favour and disfavour, are thrust into their hands under such circumstances, and over a people socially and politically so widely separated from themselves, that the meanest is never tempted to use the sacred trust to his own paltry benefit, and the more enlightened are able to indulge in the proud ambition of striving to be the benefactors of their species; for the elevation of their position enables them to look on power from a philosophical point of view, and to desire it for no other purpose than to be of use to their fellow men, and no longer, that, when that advantage can be permanent. Man—vain man—drest in brief authority, may indulge in capricious tricks, but such is not the case, when from the dawn of manhood to the period when the faculties commence to decline, that authority has been wielded, not as a thing desired, but as a necessity.

Thus is taught the art—the noble trade—of rule, the power of swaying subject millions, the faculty of surmounting every obstacle, of meeting every difficulty, from the clamorous strife of a petty village to the dismantling of an imperial fortress: thus is acquired the readiness to open out any question, the grasp of details, the self-reliance and proud confidence, that a man in the full power of his intellect can sway and rule thousands. While his contemporaries in England are rejoicing in horses and dogs, the youth, sent out to India, has already held a responsible charge, and tried his own metal: he has felt his heart melt with pity for unredressed woe, his ambition burp high, and schemes of benevolence, schemes of reform, develop themselves, which sooner or later it may be his to carry out. There are moments of depression, hours of sickness and sorrow, disappointed plans, unrequited merits, the feeling of insufficiency for such things: but on the other hand, even when yet in mid career, and unattained as yet the half-way house of life's journey, he can feel that he has done something, that he has left some trace in the sands of time, and that in some distant valley his name is quoted affectionately as a household word; that he has stood forth to hundreds as the representative of his nation, as the embodiment of a great idea, the idea of justice, the genius of order, that he has been the teacher of equality betwixt man and man. While those things are most valuable, he has tasted the sweets of a proud independence, has emancipated himself from the shackles of parental economy: his eye has glistened with the power of the stern order, the rapid execution, the tremulous obedience, the feeling of control over other and weaker minds, the superiority of the intellectual and educated being over his fellow creatures, savage, and unrefined.

Many have fallen by the roadside; though strong and eager for the fight, like young Malcolm they have perished early, and sleep in some forgotten grave, marked by some voiceless obelisk: they were of the same English seed, but their flower was not given to blossom. Others have spent the best of their lives, and then fallen, as they were about to enter into their reward. Sleep they soundly, for their work is done; at the great Judgment seat it will be known whether they have judged the folk righteously who were prostrate at their feet, whether they allowed mercenary feelings, or prejudice of nation, prejudice of caste, prejudice of *dharma*, to warp the pure dictates of justice, whether they mistook their duty, and allowed self to obscure them from the people whose interests were confided to them. Round us, as we advance, the battle field of life is strewn with the memorials of the departed. By that trophied urn lies he who was embalmed in the conventionally expressed regrets of the Govern-

ment: beneath that thorn-covered mound sleeps one who made his solitary moan in the jungle, full of noble promise which it was not his to fulfil. Busy memory recalls to us, as we write, the assassin's blow at Delhi, the beleaguered hospital at Lucknow, the stream where, with his young wife and infant child, fell poor George Christian: the solitary outhouse, where Englishmen solemnly shook hands, and were led out to be shot like dogs: the nameless sack at the bottom of the ocean.

Some few, strong in purpose and frame, climb to the summit, and grasp the sceptre of Government, because no Lordling from England happened to be available at the moment, or because the post appeared too dangerous to be pleasing. But to them the elevation has proved to be a burden too heavy for them to bear, a vanity and vexation of spirit, ending in an untimely retreat, or an immature grave. Some return home, their labours done, the work of their lives exhausted, and find their contemporaries, their school friends, still on the lower rounds of life's ladder, as rising advocates and promising divines, and life appears to have moved snail pace at home, while in India it has advanced with the speed of a Railroad. They return home to wile out the remnant of their days, the residue of their faculties, ingloriously at the London club, or obscurely in the Highland valley: but often and often, in dreams of the day and dreams of the night, will they live over their past lives, and think of the dark people whose fortunes they have swayed for good or for evil, will regret much that they omitted to do, and much that they might have done better, and long for renewed vigour and fresh youth to devote to the same cause.

One man—one only—has in these last days retired amidst the plaudits of England and India, and as on the eve of his departure the great Proconsul was about to resign his Dictatorial wreath, he received from his fellow labourers an ovation, far transcending the vulgar strut up the Sacred Way, or the blood-stained triumph of the Capitol. He had no more favours to bestow, no more patronage to dispense, but he was the pilot who had weathered the storm, and he deserved the acknowledgments which he received. There he stood, firm on his legs, square in his shoulders, dauntless in his aspect, built in the mould of a Cromwell, ready to look friends or foe in the face, incapable of guile, real or implied, and yet so strong in his simplicity and straight-forwardness that he was not easily deceived. Age had silvered his hair and dimmed his eyesight, since thirteen years ago we met him as he crossed the Sutlej, but nought had been diminished of his energy, or of his firmness of purpose. Good fortune, and a wonderful coincidence of events, had seconded his exertions, and rising from the ranks of his profession he had in

his own rough way carved out an European reputation, received every honour which a citizen could wish for, the great Civil Order of the Bath, and the thanks of the Commons: but amidst the applause of all parties he had not contracted one spark of conceit. Elevation had not spoilt him.

He was equal to all things—a good man and true, who did the work that was set before him, strongly and thoroughly; who, when experience failed, drew on his own judgment, trusted to his own firmness, and was never found wanting. Indomitable in adversity and restrained in prosperity, he has left the Republic a train of followers, who are proud to be deemed of his school. In the United States such a man would have been President of the people; in England, had the aristocratic element been less exclusive, he might have been like the elder Pitt, a great War Minister: in the Middle Ages he would have carved out a kingdom. He knew and remembered after a lapse of years the minutest details of one administrative system, still he grasped, and at once adopted, the general view of a subject which so many bureaucrats miss. Unrivalled in rapid despatch of business, he never tolerated delay in others, but he knew when to relax and when to slack the rein, and he was the master, not the slave of his work, and never sacrificed ends to means. So great was his prestige, that all, military or civil, older or younger, tendered to him the willing homage of obedience. He rose to ennoble the last years of the rule of the Company, as if to prove that the system of nomination could by chance produce a man, as a set off to the scores of dullards with which India had been oppressed: he all but effaced the stain on the Company's shield, that during a century of rule she had never given one servant to take his place for Indian services among the hereditary senate of his country.

Such men have been. And doubtless circumstances will produce many such another, for we have confidence in the English character, and especially in India no sooner is the want felt than the right man appears. It is a highly honourable feature of the Indian services that so many individuals have devoted themselves with success to scientific, literary, and antiquarian pursuits: in Botany, Numismatology, and Philology we have had worthy representatives, and such labours are highly to be encouraged; but when individuals devote their whole time and talents to such studies, and neglect the prosaic duties for the discharge of which they are paid, we have no hesitation in saying that they depart from the strict path of honesty: There have been some notable instances. Col. Sleeman narrates that a Magistrate, wishing to find time to translate the "Hænriade" into English verse, directed his police not to send in any reports: this must be an ex-

treme case, but we have always considered that it is fatal to a Civil officer to have a taste, and it is proverbial that a man who plays the fiddle goes sooner or later to the bad.

We now proceed to notice the famous "Scorpion Rules," which, originating in Bengal, (to the surprise of every body as it was credibly believed that no good could arise from that quarter,) have spread over the whole of British India, and have been productive of the most satisfactory results. To their introduction there were many opponents, and many doubters, and among others a late Lieutenant Governor of the N. W. P. to the last disapproved of them, under the idea that many excellent officers would fail to pass the standard. By a singular coincidence the same Gazette which announced his death, published the new rules to the world. His views were founded upon a mistaken idea of the nature of the examination. It was intended to be, and is, strictly professional, without room for book learning, pedantry, feats of memory, or mere cramming: the best practical proof of the suitability of the rules is, that in the long-run all have passed, and the best proof of the advantage to be derived therefrom is, that the men of the last ten years are better grounded, and better officers, than those of the preceding period, however inferior they must be, owing to age and education, to the recruits under the new regime. There was a good deal of jibbing, and refusing the collar at the first start, but all take to the draught now; and as there are two standards, it has been necessary to restrain parties from passing both at once. Promotion is, or ought to be, regulated by the report of these examinations, and if a man wishes to distinguish himself above his fellows he now has the opportunity. We maintain that, with rare exceptions, the first boy at school is the first throughout life, supposing that he has won that position in fair fight over worthy rivals: for what led him at school to contend for honour, but that feeling immortalized by Homer of always desiring to be the best, and that feeling, if not allowed to be choked by the good things of the world, or trampled out by neglect, will not desert him. It has been justly remarked that no doubt self-tuition is sufficient for great minds: what great men conquer for themselves nourishes the mind, the rest is but lumber. But it is a palpable error to suppose that all will educate themselves: the majority, who range about mediocrity, have to be educated by force; thence the necessity of stimulants, of periodical refreshers, and here we find the justification of the measure for continuing the period of pupilage far into manhood.

The last paper noticed at the head of this Article relates to a tentative process, which has not yet obtained the force of law:—it is the natural and logical deduction from what we have des-

cribed above as the practice of England and India, it is the last link of the chain. It has been either purposely misunderstood, or hastily condemned, and has been classed with certain other measures of an unpractical and pedagoguish character. When a man hires a cook he certainly requires that his dinner should be served up properly, and, if that test fail, no feelings of benevolence would induce the master to keep the servant: when a particular weapon is introduced in the Army, soldiers are placed in a school, and required to obtain a proficiency in its use, and promotion, or reward, fall to the lot of the most proficient. The printer would not keep a devil who could not do the work of his craft; the tradesman would not keep a shop-boy, or the merchant a clerk, unless he were fit and continued to be fit. Already the Government are at a disadvantage as regards individual members of the community; for if an employé is dismissed from a private situation, there is nothing for it but to look about for work elsewhere, but if the Government exert such a power, there is a howl set up by interested parties, as if some prescriptive right had been acquired. It is notorious that Government is less well served than private concerns, in spite of regular salaries and pensions, and the delays and inefficiency and often gross carelessness of public employés are a favourite theme of comment. And yet when attempts are made to secure the introduction of fit men, to train and instruct those already in service, to weed out incapables, a cry is raised against that movement also. So inconsistent and imperfectly informed is the public, that it appears as useless to try and impress clearly on minds pre-occupied by interested prejudices, the objects of the movement, as to write distinctly on paper which has been scribbled over with a pencil, and yet the system which we advocate is founded on human interests and human sympathies.

Be it always recorded in praise of native candidates for employ, that as an educated class they are superior to the European or Eurasian of the country: while an English clerk cannot express himself correctly or simply in any letter, so that all heads of departments have to draft their own letters on the commonest subjects, the native clerk of the lowest stamp can read and write correctly one, if not two, languages, is well versed in arithmetic, and can write from dictation, and draw up grammatical, and even elegantly expressed reports. There are certain classes who live by the pen, and who from tuition at home or at school arrive at this stage, and if employed in a Government office will keep at this stage for the whole of their lives. As to general education, literary tastes, expanded notions, they have them not, but to a certain extent they form a guild, and it is not easy for a stranger trained in another groove

to find a place among them. This is the real impediment to the introduction of the Christian element among the native employés, as the acquirements obtained in Mission and Government schools, are unpractical: there is no question about religion. The Hindoo and Mahomedan sit side by side, and so might the Christian, if he were only fit: in the English offices he is generally to be found, but in the vernacular rarely.

A guild, once formed of the literary classes, has a tendency to perpetuate itself and exclude intruders. The sons and nephews of public employés arrive soon at the minimum stage, and have lived from the earliest days among officials: when vacancies occur, they are pushed forward, and, as the European officers are constantly being changed, certain families or cliques become all powerful, and the real masters of the position. Perhaps every ten years comes a clearance—a feud springs up betwixt two rival factions, who carry out an internecine war, or things get too bad to last, or some reckless reformer makes a clean sweep: after a short time the waves close in again, and, as there is no understood system of promotion, no legitimate test of proficiency, matters become very much as before. Trains of employés follow officers from district to district; the relations of patron and client become established, and men, ejected for gross misconduct in one district, without difficulty secure employment in the next.

The appointments held by natives, in the Civil Department, are very numerous and very much coveted, as they are considered to give a status in society, and *certainly secure* regular pay, a certain degree of power, and a pension; longing eyes have been cast upon them by the Educational Department, who would gladly make them the prizes of their Colleges, and by the Missionaries, which we very much regret, as tending to throw a doubt upon the purity of motive of converts. Up to a very late period not only has there existed no rules as to the disposal of this patronage, but no books from which candidates could obtain elementary knowledge so as to enable them to secure a footing, or more particular knowledge so as to justify promotion. This want has now been supplied, and as regards the Governments of Agra and Lahore there exist a sufficiency of vernacular treatises suitable to every department of the public service. Moreover the spectacle of the European and native high officials being submitted to annual examinations, has not been without its effect: the Government in this have reversed the ordinary proverb of experimenting upon the inferior parties for the instruction of the superiors. No native underling can now object to those scorpion rules, under which the conquering race itself has smarted.

Individual attempts were made under the Agra Government to introduce professional examinations, by which some legitimate channel for promotion might be marked out, and a spirit of emulation roused. They were successful, graduated certificates of proficiency were distributed, a class of apprentices formed; those who were wise in their own conceits, were roused to some hazy idea of their own ignorance, and the general results were such as to justify the experiment. A blow was struck at nepotism and patronage, and, while official knowledge ceased to be a mystery, and the service was thrown open to all, a certain degree of independence was secured to the official, for while his conduct was testified to, year to year, by entries in the character book, his capacity was placed beyond doubt by his annually renewed certificate. We maintain that men are men all over the world, influenced by the same passions, led by the same prejudices, encouraged by the same hopes, controlled by the same fears and that, if Government wish to be well served, it must be careful in the selection of good agents.

The storm that overspread the provinces of the Agra Government in 1857, swept away all—the just and the unjust, the creature of favour, and the successful adventurer. Certificates of proficiency neither kept back men from rebellion, nor did they save their necks from the gallows: as a rule, the efficient servants of Government joined the rebels, the stolid fools remained loyal. Most lamentable fallings away are on record in every district, and compilers of vernacular treatises came under the sharp discipline of the Special Commissioners. Rebellion appeared to infect individuals like the small pox, or other epidemic, for those, who did remain firm, could no more explain why they did so, than those who rebelled. But in the provinces of the Punjab the seed fell into more favourable ground; the advantages of the system were appreciated by the most practical of Governors.

The examination enjoined is strictly professional. There are departmental Colleges for Engineers at Roorkee, for Surgeons at Agra and Calcutta, there are normal schools for the training of schoolmasters, musquetry schools for soldiers: the same is now recommended for civil employés. It is not proposed to open all posts to public competition, but to restrict selection to certain classes, which would be recruited annually by qualification examinations, to be held in each district. As in England, so in India, age, health, and character should be considered; neither caste, nationality or religion, have ever been either an advantage or impediment in the Civil Department, and whoever says that they have, is imperfectly informed. There should be two standards of examination, the ordinary, and the special, the

latter being modified to suit the particular department of the service, and all graduates of Government or missionary schools being considered to have passed the former. Thus would at once the object of all parties be gained:—the Government would be well served, merit would be rewarded, and honesty be considered the best policy, when nepotism and favouritism are put down. The legitimate demands of the educationist and the missionary would be met by granting a fair field and no favour, the lists being thrown open, and the secrets of the profession made known by means of vernacular text books.

The Civil Service Commissioners remark, that they appreciate the great advantage of an Examination not merely as a test of literary merit, but as affording an insight into the disposition and character of the party examined under a somewhat trying ordeal; and the opportunity afforded to a young man of distinguishing himself in the presence of his superiors, with whom rests the power of elevating his social position, is not one of the least advantages. Those who habitually search for talent, and delight in being the discoverer and promoter of intellectual ability in others, will not be sorry to be periodically made acquainted with the natural gifts and acquired attainments of their official subordinates: with the dullard, who has neither talent nor ambition, and for the unpatriotic official who tries not to develop or excite these feelings, we have no sympathy. Not only must the entry into the service be dependent on certified fitness, but promotion from grade to grade must depend upon similar conditions. To those who object or doubt, we say

Si quid novisti rectius illis
Candidus imperti, si non his utere mecum.

- ART. VII.—1. *Rig-Veda Sanhita. Translated from the Original Sanskrit.* By H. H. WILSON, M. A., F. R. S. Vols. I., II., III. London: W. H. Allen and Co. 1857, &c.
- 2.—*India, Three Thousand Years Ago.* By JOHN WILSON, D. D., F. R. S. Bombay, 1858.
- 3.—*Ethnology of India.* By R. G. LATHAM, M. A., M. D., F. R. S. London. 1859.
- 4.—*Original Sanskrit Texts.* By J. MUIR, ESQ., D. C. L. Part I. *The Mythical and Legendary Accounts of Caste.* London: Williams and Norgate. 1858.

WE have now before us the first half of the Rig-Veda, the oldest book known to the Hindus, and certainly one of the oldest books in the world. A Veda, in its strict sense, is simply a *Sanhita*, or collection of hymns. There are three universally received Vedas,—the *Rig*, *Sama* and *Yajur*. A fourth, the *Athava* or *Atharva*, is of more modern date and doubtful authority. These hymns form the *Mantra*, or ritual, and are the true *Veda*.

Besides these, however, Hindu writers attach to each Veda a class of compositions, called *Brahmanas*, chiefly liturgical and legendary, and, in the *Upanishads*, passing into the rationalized state, and becoming metaphysical and mystical. It would be difficult to find two sets of opinions more absolutely irreconcilable than Vedic Hymns, and Vedantic philosophy.

There is still another supplementary mass of Vedic literature, including philology, commentaries, *Sutras* or aphorisms, &c., the study of which, according to Professor Wilson, "would furnish occupation for a long and laborious life." But for the study of India, as it was 3000 years ago, no such formidable apparatus is necessary. It is found on examination, that the *Sama* and *Yajur* (and to a considerable extent the *Atharva*) are only recastings of the Rig-Veda, which contains in itself all the available data for the earliest Indian history to be obtained from native sources. Brahminical commentators and writers of later ages cover all over with a thick plaster of incoherent falsehood; and, except as to grammatical construction and translation into modern words, we are far abler to discover and understand what story these ancient documents tell than any of the Pandits. For we have to deal with questions of race, of language, of history, of chronology, and external influences; questions unknown, and therefore unintelligible, to the Hindu mind:—the *Vishnu Purana* sufficiently indicates how it deals with them.

The *Rig-Veda Sanhita* is a miscellaneous collection of hymns.

Each hymn is called a *Sukta*. The whole work is divided into eight books, or *Ashtakas*, or *Khandas*. Each *Ashtaka* is sub-divided into eight *Adhyayas*, or chapters, containing an arbitrary number of *Suktas*. The whole number of hymns in the Rig-Veda is about a thousand. There is a further sub-division into *Vargas*, of about five stanzas each, for convenience in committing to memory. This arrangement is altogether artificial. Another plan divides the whole into ten *Mandalas*, sub-divided into about a hundred *Anurakas*. An *Anuvaka* may contain any number of hymns, from one to twenty. The *Mandalas* are assigned (six of them at least) to the same individuals, or to members of the same family.

Each hymn has a *Risht*, or inspired teacher, for its author. Unfortunately their names are not usually mentioned in the hymn itself, but depend on the authority of an index of later date, which also specifies the metre, the number of stanzas in each hymn, and the deity, or deities, to whom it is addressed. We are indebted to Professor Wilson for an English translation of four *Ashtakas*, containing 502 hymns, or a full half of this celebrated Veda; and there is reason to believe that, with the exception of one or two disputed stanzas, the remaining half has nothing materially different. One name of a king however, or a country, or a river, may solve many interesting and yet undetermined problems; and therefore, until the whole is published, all that may be gathered from the Rig-Veda is not fairly before us. But these reserved points concern chiefly the antiquary and the historian; for the general reader, the mystery that covered the Vedas is a mystery no longer; and all that they contain stands out for public view in the common light of day.

Colebrooke's masterly analysis of the Vedas is the most valuable contribution to Indian literature that has yet been made. It is a model of accurate research, calm, sober thinking, and of a mind that will not be led away by tempting speculations. Some of his statements have to be modified, and his chronology, like that of all others dealing with enormous and conflicting falsehoods, is but guessing in the dark. But he walked with a firm foot and a clear eye through the quicksands, and has marked out the path most distinctly for those that follow. It is singular that an essay so remarkable should have attracted so little notice. In England the form was against it. A *catalogue raisonné*, unless you can look at the pictures or the specimens, is very dry reading. Wilford's wild hobbies and the impositions practised upon him; Bentley's startling discoveries and assertions, the conflicting periods, genealogies and systems, which the Hindu accepts without misgiving, affected the English mind most unpleasantly. It grew weary of Sanskrit litera-

ture, barely tolerated its epics and dramas, was not to be excited by the genius and enthusiasm of James Prinsep, or the talents and accomplishments of Horace Hayman Wilson; and, in short, turned from it altogether to newer and fresher themes—to Layard and Rawlinson, and Lepsius and Bunsen; to the monuments of Egypt, the palaces of Nineveh, and the rock of Behistun; to recovered languages and contemporary histories older even than the Vedas: to sun pictures, and thought-flashing wires, which may yet bind the earth into a household;—to that giddy whirl of change and revolution, which has kept Europe for the last 80 years at fever-heat.

It is easy to understand why Colebrooke's analysis of their most sacred books failed to affect the Hindus. Being written in English, they knew nothing about it; and, if they did, they would not have believed him. Nothing, but the books themselves in a cheap form and in the vernacular languages, will open their eyes;—and then only very gradually, and with European help. From (what is called) the educated natives, help, we fear, is not to be expected. What force of moral earthquake may be necessary to uphelve the apathy of the Hindu mind is beyond the reach of our calculus. The rail and the telegraph, the schoolmaster and the missionary, like the great powers of nature, are agents of slow and silent, but irresistible change. Can such change come, suddenly? There is no Hindu who has not heard of the Vedas. The words, that sprung into being from the lips of Brahma himself before man was created, are enshrined in his faith, though they have passed away from his knowledge. Forbidden to the Sudras, from their rarity and high price inaccessible to the Brahmans, for that very reason they are the objects of a more profound and superstitious veneration: and if any thing can be supposed *à priori* to startle and excite all Hindustan, it is surely the announcement that the Vedas have become public property, and that Sudra, out-caste, and *Mlechcha* may read them at his will.

We purpose to help on this good work by writing down our impressions of what they seem to contain. These are formed entirely from the English version of Professor Wilson, which leaves nothing to desire. It is an intellectual luxury to read such a masterly performance.

The history of his translation is this. The text is taken from Dr. Max Müller's printed edition of the *Suktas of the Rig-Veda*, with the commentary of *Sayana Acharya*. *Sayana* was a man of high station, and a deservedly celebrated scholar. He was brought up at the Court of *Virā Bukka Raya, Rajah of Bijayana-gar*, in the fourteenth century of our era. The first portion of his *scholia* on the *Rig-Veda* translates the original text into more modern

Sanskrit; fills up its ellipses, and narrates in detail any legend to which it alludes. In Professor Wilson's version the filling up of the ellipses is inclosed in brackets, and the explanations are given in foot notes, with Dr. Wilson's reasons for approval or dissent: so that the reader in every case has the means of judging for himself.

A carefully written and most valuable introduction is a guide and key to each volume—perhaps to ordinary readers the most valuable portion of the book; and a good index gives every facility for reference.

One slight improvement only we venture to suggest for a 2nd edition;—to put the name of the *Rishi* of the hymn at the head of each page. The translation has also been compared in whole or in part with other German, French and Latin versions; and there can be no reasonable doubt that it is a thorough, faithful, and accurate transcript of the original text.

Our task then is to give a popular and concise answer to the question "What is there in the Vedas?" That answer has been already given with knowledge and learning far above ours in Mr. Colbrooke's Essay, and in Professor Wilson's three introductions, as already stated. The Rev. Dr. Wilson of Bombay also, with that wisdom and readiness which distinguish him, has already laid the results before a Hindu audience; and in his seasonable and instructive pamphlet, *India Three Thousand Years Ago*, has gathered all that was certain from his two predecessors, and added much valuable and interesting matter of his own. It is a complete hand-book to the Vedas, and deserves the widest circulation.*

The results at which these distinguished scholars have arrived will probably be new to many of our readers.

About most of them there can be no difference of opinion, for there is nothing recondite in the text of the Vedas. The *Rishis* are plain speakers: their language is broad of the broadest, and leaves no doubt of their meaning. Outspoken men were these old Hindus, and thoroughly practical in their dealings with gods and men. But they have no bowels of compassion for historian or chronologist; and leave their whereabouts (in time at least) in all but impenetrable mistiness. Un-

* But *Place aux Dames!* All three must yield the palm to a lady. If any one wishes for a clear, graceful and most attractive picture of the Vedic times, let him read Mrs. Speir's "Life in Ancient India." This beautiful volume, without making any parade of scholarship, is scrupulously accurate, and has the high sanction of Professor Wilson for its statements. Its field is much larger than the Vedas, embracing the code of Manu, the epic poems, the origin and progress of Buddhism, and other interesting topics, and its treatment of them all is spirited and elegant,—the hand of steel under the velvet glove. Though Mrs. Speir's "stand-point" is different from ours, it is only just to state that she has written a singularly able and delightful book on a very unpopular subject.

like their subtler posterity, however, they are wonderfully truthful and consistent, and have evidently no intention or inclination to deceive. Through the mist we now and then catch a glimpse of a familiar land mark. A name will appear unexpectedly, which leads to unexpected and startling conclusions. It is here that there is room for differences of opinion, and, in such cases, we have ventured to think and to judge for ourselves.

The problem is certainly not an easy one. It is of like kind with this:—Given the Psalms of David, to discover from *these alone* the manners, customs, religion, arts, sciences, history, chronology and origin of the Jewish nation; to classify the hymns too, and assign to each its time and author, with no other help than the heading to each Psalm, added by a later hand. Knowing, as we do, that they range from Moses till after the Captivity that is over a period of at least 700 years, the latter part of the task alone would demand all the resources of scholarship. It is true the Vedic hymns are ten times more numerous: but they are at the same time ten times more monotonous and full of wearisome repetitions, under which even Professor Wilson's patience gives way. In our sacred books the code precedes, and the history precedes, accompanies, and follows the Psalms. With the Hindus the code comes after the hymns, and has to do with a different stage of society; and the history never comes at all. Nevertheless the Vedas, with all their difficulties, throw a flood of light upon the origin and early state of the Hindus.

The people among whom the Vedas were composed, when first introduced to us, had evidently passed the nomadic stage. Their wealth consisted of cattle, horses, sheep, goats and buffaloes. Coined money, or indeed money in any shape was unknown. We meet with but two allusions to gold, except for the purpose of ornament. The Rishi *Garga* receives from the Rajah *Divadasa* ten "lumps" of gold in ten purses, or bags, (vol 3. p. 474): but, this was given as part of the spoil of a vanquished enemy. The other is, where *Kakshivat* accepts *hundred nishkas* (of gold) from Rajah *Swanaya*, which *Sayana* (vol. 2, p. 17). interprets as "a certain weight of gold"; and, at p. 292, as a necklace!

In our Australian colonies, before the day of the diggings, a suitor's eligibility was estimated by his answer to the question, "How many ewes?" In the time of the *Rishis*, it was "how many cows?" The cow was the synecryme for wealth, fertility, and abundance. The sky is a cow; the clouds its udder, and its milk, rain. The earth (*Prithu*) is a cow, and its milk the food that springs from it. The cow was the pleasantest of all

thoughts to the men of the Vedas; the main burden of all their prayers. They begged for cows. They fought for cows. To have high praise, and an honourable place in the Vedas, nothing more was necessary than to give a *Rishi* a present of cows. The great Rajah *Divadasa* has four verses of laudation from *Garga* for ten horses, ten lumps of gold, a hundred cows, ten chariots, robes; and food. The holy *Bharadwaja* and his brethren give three verses and thousands of laudations to *Bribhu*, the carpenter, for his donation of thousands of cattle. (*Vol. 3, p. 465.*)

The cow was not only the translation of our word, 'money,' but seems to have been their medium of barter, corresponding to the modern Rupee. Thus (*vol. 3, p. 170.*) in reference to buying and selling, the *Rishi Vamadeva* asks "Who buys this, my Indra, for ten milch kine?" and thus it was that from gods and men the *Rishis* were always begging cows.

"*Janaka*, king of the *Vidhas*" says the *Brihad Aranyaka Upanishad*, "sat upon his throne." Then came *Yajnavalkya*. He said, "Why hast thou come, O *Yajnavalkya*? Is it seeking cattle, or subtle (questions)?" "Even both, O king of kings" said the *Rishi*" (*p. 212.*)

The cow then was to the Vedic Hindu, at once food and money. It supplied him with milk, butter, *ghi*, curds and cheese. Oxen ploughed his fields, and carried his goods and chattels. He preserved the *Soma juice* in a bag of cowskin (*Vol. 1, p. 73*); and the cow hide girt his chariot. (*Vol. 3, p. 475.*)

No idea of sacredness was connected with the cow; and it is quite clear, however abhorrent and revolting the truth may appear to their descendants, that in the golden age of their ancestors, the Hindus were a cow-killing and beef-eating people, and that cattle are declared in the Vedas to be the very best of food. We quote texts, which leave no room for a doubt.

"AGNI, descendant of BHARATA, thou art entirely ours, when sacrificed to with pregnant kine, barren cows, or bulls.—*Rig-Veda*, vol. 2, p. 225.

AGNI, the friend (of INDRA), has quickly consumed 300 buffaloes. *Vol. 3, p. 276.*

MAY PUSHAN and VISHNU cook for thee (INDRA) a hundred buffaloes. *Vol. 3, p. 416.*

Bestow upon him, who glorifies thee, divine (INDRA), food, the chiefest of which is cattle. *Vol. 3, p. 453.*

When the pious have recourse to INDRA for food, he finds it in the haunts of the *Qaura* and *Gawaya*.* *Vol. 3, p. 163.*

Sever his joints (INDRA) as (butchers cut up) a cow. *Vol. 1, p. 165.*

What an amount of beef-eating is implied in a sacrifice of three hundred buffaloes!—the greater part, as usual, being devoured by the assistants. The cooking is very minutely and graphically described, in vol. 2, pp. 117, &c. Part was roasted on

* Both are species of the Indian wild ox or cow.

spite, while the attendants eagerly watched the joint, sniffing up the grateful fumes, and saying 'It is fragrant.' Other parts were boiled in a caldron. There were vessels to distribute the broth; dishes with covers; skewers and knives; and, for daintier palates, the meat was made into balls. The queens and wives of the sacrificers assisted in cooking and preparing the banquet; which, on the particular occasion alluded to in the text, consisted of horse-flesh! All was washed down with copious libations of a strong spirit, made from the juice of the Soma plant.* Rishi *Kakshivat* had in every way most unclerical propensities. He thanks the ASWINS most cordially for giving him a cask, holding a hundred jars of wine (vol. 1., p. 308); and Rishi *Vamadeva*, who was taken out of his mother's side, solicits Indra (vol. 3, p. 186) for a hundred jars of Soma juice. Rishi *Agastya* also, in a queer half crazy Sukt, (vol. 2, p. 200,) writes of "a leather bottle in the house of a vendor of spirits." These were the men that fought Alexander, the great Macedonian: after such a feast of the Gods, Indra puts forth all his might, and destroys the fiercest of the *Asuras*.

The notices of their social state and progress in the arts imply a high degree of civilization. They had roads (vol. 2, p. 256) and ferries (vol. 2, p. 37). They measured their fields with a rod. They had carriages and war chariots drawn by horses; and bullock carts and waggons. The carriage was of wood, with brazen wheels and iron rims and pillars. It had seats, (vol. 1, p. 175,) and awnings (vol. 1, p. 94); was 'easy going' and sometimes inlaid with gold. They wore golden collars, gold bracelets, ear-rings and anklets, and golden tiaras. Iron was in common use; and they appear to have been the first to discover how to turn it into steel. Porus gave 30 pounds of steel to Alexander, as a most precious gift; and it is said to have been lately found that the steel of the far-famed Damascus blades was imported from the Indus.

We read of iron (steel) armour (vol. 1, p. 153), of shining lances and helmets; of swords and javelins; arrows tipped with steel, and cuirasses inlaid with gold (vol. 3, p. 333). The defensive armour of the poorer warriors was stitched, or padded, (vol. 1, p. 83), such as was worn by the ancient Assyrians and Persians.

The grain most frequently mentioned is barley, or millet. They had weavers and rope-makers; and for the ladies there were needles and needle-work (vol. 2, p. 288). The *bhisty*, with "his skin-bag pointing downwards," brought them water; and grooms rubbed down their horses. The camel and the ass were known to them; and of wild animals, the lion, the wolf, the dog, the deer, and the wild cow. We read of herds of wild elephants

* The modern jar holds three bushels.

(vol. 1, p. 175); but we have met with only one notice of a tame elephant, in connection with a King Mrigaya, or Mriga, an *Asura*.* (vol. 1, p. 149); and there is no allusion to the use of the elephant in war;—a fact of considerable chronological importance. The first half of the *Rig-Veda*, it is also worthy of remark, knows nothing of Indra's elephant, or of Siva and his bull.

They lived in houses, strongly built and spacious. They compare the sky to a hall with a thousand columns (vol. 3, p. 348). They must have congregated in towns; and the cities of their enemies are mentioned very frequently: but it is singular and most perplexing that the name of any one city is not to be met with. There is but too much however of the darker features of eastern city life,—cheating, gambling, the abandoning of children, thieves, courtesans, and eunuchs. All these crimes the *Rishis* pass by with a calm indifference: but there was one crime for which they had no mercy:—cattle stealing. It provoked all their ire; and dire were their curses on the robbers.

Sea-going ships and navigation in the open sea were familiar to them, and merchants sailing for gain. But they do not appear to have been a maritime nation themselves. *Bhujyu*, son of King *Tugra*, sails in a hundred oared ship, and is rescued from danger, or from ship wreck, in some mysterious fashion, by the twin *Aswins*. If these "sons of the sea" were stars, it may mean that, being driven out of his reckoning by a storm, he steered home by their aid. *Turvasu* and *Yadu* also make a sea voyage, which is often mentioned as if it were something wonderful. In both these cases no country is named, and the localities (as almost everywhere else) are left in vexatious and perplexing obscurity. The legend of *Bhujyu* is sufficiently curious. We quote it in its most detailed form from vol. 1, p. 307.

"*Tugra* verily, *ASWINS*, sent (his son) *Bhujya* to sea, as a dying man parts with his riches; but you brought him back in vessels of your own, floating over the ocean, and keeping out the waters. Three nights and three days, *NASATYAS*, have you conveyed *Bhujya* in three rapid revolving cars, having a hundred wheels, and drawn by six horses, along the dry bed of the ocean to the shore of the sea. This exploit you achieved, *ASWINS*, in the ocean, where there is nothing to give support, nothing to rest upon, nothing to cling to, when you brought *Bhujya*, sailing in a hundred oared ship, back to his father's house." The *Aswins* are now supposed to be the three stars of Aries, and are represented by a horse's head in the Hindu zodiac. This accords with the three-wheeled car given to them in the *Rig-Veda*

* Professor Wilson calls this beast a "terrene elephant" and gravely asks whether it may not be the *Suatherium*. Is not *Mriga* *ya* *hasti* "the elephant of Mriga?"

(Vol. 1, p. 96.) The hundred wheels of the text are the hundred oars. Here we have evidently one of the first piratical expeditions on record; but while Jason had only one ship, Bhujya has three. It is further interesting, as showing that, in these primitive times, the Hindus had the courage to stand out to sea, and to steer by the sun and stars.

The Rajahs sent ambassadors to one another. There were "halls of justice," halls and chambers of sacrifice, but apparently no temples and no images. They had *sarais* (caravanserais) on the great roads, which were often infested with robbers. They had doctors and drugs of all kinds, under the special patronage of *Rudra* and the *Aswins*: and, for their amusement, they had puppets and stage exhibitions. (Vol. 3, p. 185.)

The social position of woman was considerably higher than it is in modern India. She is spoken of kindly and pleasantly, as "the light of the dwelling." The Rishi and his wife converse on equal terms, go together to the sacrifice, and practice austerities together. Lovely maidens appear in a procession. Grown up unmarried daughters remain without reproach in their father's house. On the other hand, we have a case of polygamy of the most shameful kind. *Kakshivāt*, one of the most illustrious of the Rishis, marries ten sisters at once (vol. 2, p. 17); and, if the tone of female society is to be judged of from the wife of a Rishi, or from a lady who is herself the author of a *Sukta*, women, in those days, were no better than they should be.

A gallant, deep drinking, high feeding race were these wild warriors by the Indus. They rushed to the fight rejoicing in the "dust of battle." They made forays far and wide; and would have nothing from the gods short of a hundred *winters*. "Since 'a hundred years' says the Rishi Gotama, 'were appointed (for the life of man) interpose not, gods, in the midst of our passing existence, by inflicting infirmity on our bodies.'" Vol. 1, p. 230; and many a cow must they have stolen, and many an enemy must have gone down beneath their lance, ere the hundred "winters" passed away. With lance and battle axe, shining helmet, varnished mail inlaid with gold, sharp sword, and war-horse in splendid trappings, are we not transported to the days of chivalry, to the knightly barons on the banks of the Rhine? And if high tournament be proclaimed and lists spread, and the high born maiden sits in her beauty, the prize for gallant feats of arms, would not words and deeds alike avouch the kinship of the East and West, the oneness of the great Indo-German races? But even so, we read, it was done on the banks of the Indus. "Aswins," says *Kakshivāt*, "your admirable (horses) bore the car, which you had harnessed, (first) to the goal, for the sake of honour: and the damsel, who was the prize,

'came through affection to you, and acknowledged your (husbandship), saying, you are (my) lords." Vol. 1. p. 322.

This lady (allegorical by the way) was won in a chariot race; *Rama* wins *Sita* by the bending of the bow, and so *Arjuna* won *Draupadi*. Such cases, of course, were always (and must always have been) rare and exceptional: but it is strange and startling to come upon the most extravagant flights of mediæval chivalry reflected back from the Hindu Vedas.

The picture of Hindu life and manners, at the time of the Macedonian invasion, differs from ours chiefly in being more darkly shaded. The Hindu even then had degenerated; and the "Life of an Eastern King" on the banks of the Indus differed little in its shameful details from that of his modern successor at Lucknow on the banks of the Goomtee.

"The shameful luxury of their princes," writes Curtius (Lib. VIII. 32) "surpasses that of all other nations. He reclines in 'a golden palankeen, with pearl-hangings. The dresses, which he puts on, are embroidered with purple and gold. The pillars of his palace are gilt: and a running pattern of a vine carved in gold, and figures of birds in silver, ornament each column. The *darbar* is held while he combs and dresses his hair: then he receives ambassadors, and decides cases, * * The women prepare the banquet, and pour out the wine, to which all the Indians are greatly addicted. Whenever he, or his queen, went on a journey, crowds of dancing girls in gilt palankeens attended; and, when he became intoxicated, they carried him to his couch":—and, if we are to believe his biographer, into such a vile sensual thing as this, the great Alexander was rapidly degenerating.

Turning to more important subjects, let us inquire what the *Suktas* have to tell of the religion and worship of the Vedic Hindus. The curious antipathy of the Hindu mind to facts, and its ignorance of the very elements of history and historical evidence, distinguish the Hindus from all other nations having a rich and cultivated literature. When such evidence is asked for, or any evidence for the truth of his religion, probably the answer of nearly every *pandit* would be, "Our fathers taught us, as their fathers taught them, that the Vedas came from the mouth of *Brahma*." Is it true then that the mythology and worship of the present day are identical with those of the Vedas, are derived from them, or closely agree with them? Let it be remembered that this is not a question of mere antiquarian lore, or literary curiosity. It may involve great results and momentous interests. Like the recovered Bible in the hands of Luther, the recovered and published Vedas may prove a fulcrum for effecting great and large changes in the popular belief—

the introduction to a brighter day. For the answer is, that they have so little in common, that they must be acknowledged in all fairness to be two distinct religions. Professor Wilson's calm and temperate statement on this point carries conviction with it : and we can vouch for its accuracy, so far as the first half of the *Rig-Veda* is concerned.

"We find" writes he, "a striking difference between the mythology of the *Rig-Veda*, and that of the heroic poems and *Puranas*. The divinities worshipped are not unknown to later systems, but there perform very subordinate parts ; whilst those deities, who are the great Gods, the *Dū Mjyores* of the subsequent period, are either wholly unnamed in the *Veda*, or are noticed in an inferior and different capacity. The names of SIVA, of MAHADEVA, of DURGA, of KALI, of RAMA, of KRISHNA, never occur, as far as we are yet aware. We have a Rudra, who in after times is identified with Siva, but who, even in the *Puranas*, is of every doubtful origin and identification, whilst in the *Veda* he is described as the father of the winds, and is evidently a form of either AGNI, or INDRA." With the single exception of an epithet *Kapardin* (with braided hair) of doubtful significance, and applied also to another divinity, "no other epithet applicable to Siva occurs, and there is not the slightest allusion to the form in which, for the last ten centuries at least, he seems to have been almost exclusively worshipped in India, that of the Linga or Phallus : neither is there the slightest hint of another important feature of later Hinduism, the *Trimurti*, or tri-une combination of Brahma, Vishnu, and Siva, as typified by the mystical syllable OM (a-u-m), although, according to high authority on the religions of antiquity (Creuzer), the *Trimurti* was the first element in the faith of the Hindus, and the second was the Lingam." Vol. 1, pp. 26, 27.

Who then were the Gods whom the Vedic Hindus worshipped ? There is no difficulty in the answer. They worshipped INDRA and AGNI. INDRA was the firmament, with all its phenomena. He alone held the thunderbolt, and was King over Gods and men. AGNI was the element of fire. All the other Gods were but manifestations, or other forms, of these two. The relationship is evident between Agni and the Sun, the *Surya*, or *Sura*, or *Savitri* of the Vedas, and a female divinity. But Indra also is frequently identified with the Sun ; indeed, the 12 great deities, or *Adityas*, are but other names of the same deity, as presiding over the 12 months of the year. It seems strange in the face of so significant an inference, that most of the best oriental scholars, including even the iconoclast Bentley, agree in affirming that the division of the zodiac into 12

signs was long posterior to the time of the Vedas, and that the Rishis were familiar with the 27 *Nakshatras*. The *Adityas*, most frequently invoked are *Mitra*, *Varuna*, *Aryaman*, and in a lesser degree *Pushan Bhaga*, *Vishnu*, and *Tvashtri*: There is some discrimination in these attributes: but on the whole they are pale and colourless. Pushan watches over roads and travellers, Tvashtri is the Vulcan or "smith" of the Gods. Slight mention is made of Vishnu: but we have the germ of the legendary "three steps," being apparently simply the rise, culmination, and setting of the Sun.

Among the inferior deities, the *Maruts*, or winds, hold the first place; and next to them, or nearly on the same level, the *Aswins*.

These are two, apparently twins or brothers, and sons of the sea (*Sindhu*). Sometimes, as Dr. Wilson notices, they seem to be the "precursive rays of the sun," at other times, perhaps the sun and moon as rising out of the sea; so that the Vedic Hindus evidently had settlements on the sea coast. They are almost invariably represented as having a triangular car with three wheels, drawn by *asses*—while their name appears to be derived from *aswa*, a horse, which would seem to identify them with the two horses of the sun. Altogether they are a perplexing pair: and the *Suktas* addressed to them are richest of all in legend.* It can scarcely be doubted we think that they are connected with the primitive Hindu astronomy, which we shall afterwards notice.

Heaven, Earth, (*Aditi* and *Prithvi*) and Ocean, are rarely invoked, and the Sun has comparatively few *Suktas*. Occasional laudations are given to rivers, especially to *Saraswati*: and this nature worship extends so largely as to embrace the cow, the wood used in the oblations, and even the *yapa* or sacrificial post. We had almost forgotten *Ushas*, or the dawn, to whom some of the most beautiful hymns in the Veda are addressed. All these deities are expressly declared to be "the progenitors of the heavens and the earth" (vol. 1, p. 276). No mention is made of the planets: for Brihaspati, or Brahmanaspati, is not a planet, but "the lord of Prayer;" and the moon has not even a *Sukta*. The worship of the Vedic race is briefly but comprehensively described by themselves, (Asht. I. Adhy. I. Sukta 6.)

"The standers around associate with (INDRA) the mighty

Their connection with Indra (Jupiter), their patronage of mariners, their twin-brotherhood, the two horses and stars found on their coins, identify them with the Grecian Dioscuri, and add much strength to the theory that the Greeks were an Aryan or Persian tribe originally, as their language indisputably proves. The legend of the Dioscuri is another link in the chain. It is singular to find an exceptional and peculiar worship prevailing in countries so remote as India and Greece, while it had its origin (if it ever existed) among the parent stock in the vast regions between.

"(sun), the indestructive (fire), the moving (wind), and the lights that shine in the sky."

The religion of the Vedas, then, was nature worship, light careless and irreverent, utterly animal in its inmost spirit, with little or no sense of sin, no longings or hopes of immortality, nothing high, serious, or thoughtful. There was no love in their worship. They cared only for wealth, victory, animal gratification, and freedom from disease. The tiger might have joined in their prayers—Grant me health, a comfortable den, plenty of deer and cows, and strength to kill any intruder on my beat. "The blessings they implore" says Professor Wilson, "are for the most part of a temporal and personal description;—wealth, food, life, posterity, cattle, cows and horses;—protection against enemies, victory over them, and sometimes their destruction." "There are a few indications of a hope of immortality* and of future happiness: but they are neither frequent, nor, in general, distinctly announced." "In one or two passages *Yama*,† and his office of ruler of the dead, are obscurely alluded to. There is little demand for moral benefactions."—(Vol. 1, p. 25.)

So merely fanciful, so wearisome and monotonous, so contemptuously irreverent, are the great bulk of their prayers (to Indra especially) that Professor Wilson can scarcely believe them to be in earnest. Take for instance the following hymn. It is addressed to the goddess Anna (*Anna Devata*, known in Bengal as *Anna Purna*), personified as *Pitu*, or material food, by the Rishi Agastya. (Vol. 2, p. 192).

1. I glorify *Pitu*, the great, the upholder, the strong, by whose invigorating power *Trita* (Indra) slew the mutilated *Vrutra* (a cloud)
2. Savoury *Pitu*, sweet *Pitu*! we worship thee; become our protector.
3. Come to us, *Pitu*, auspicious with auspicious aids; a source of delight; not unpalatable, a friend well respected, and having none (but agreeable properties).
4. Thy flavours, *Pitu*, are diffused through the regions, as the winds are spread through the sky.
5. Those (men), *Pitu*, who are thy distributors, most sweet *Pitu*, they, who are the relishers of thy flavours, are as if they had stiff necks (got to the throat?).
6. The thoughts of the mighty gods are fixed upon thee: by thy kind and intelligent assistance, (Indra) slew *Ahi*.
7. When, *Pit*, this (product) of the water-wealthy clouds (the rain) arrives, then do thou, sweet *Pitu*, be at hand with sufficiency for our eating.
8. And since we enjoy the abundance of the waters and of the plants, therefore, BODY, DO THOU GROW FAT.

* We have not found these, except in the legend (for nothing is founded on it) of three brothers, called *Ribhus*, who for their meritorious actions were made gods of the peaks of mountains of Puranic rubbish.

† *Yama* is usually connected with the *Yamuna* river, and was perhaps worshipped there by a native tribe.

9. And since we enjoy, *Soma*, thy mixture with boiled milk or boiled barley, therefore, BODY, DO THOU GROW FAT.

10. Vegetable cake of fried meal, do thou be substantial, wholesome, and invigorating; and BODY, DO THOU GROW FAT.

11. We *extract* from thee, *Pitu*, by our praises as cows yield butter for oblations; from thee, who art exhilarating to the gods; exhilarating also to us.

In a similar strain the *Soma* plant is addressed, mixed up by a curious association, of which we have lost the key, with *Soma*, the moon-god. This plant, (the acid *Asclepias*), is found only, according to Dr. Roxburgh, from the mountains of Mazenderan all the way to the Indus, and on the hills of the Bhelan pass. *Viswamitra* passes the Sutlej and Beyas to gather it. It was bruised between two stones, mixed with milk or barley juice, and, when fermented, formed a strong inebriating ardent spirit—probably not very unlike whisky.

Herodotus, (Book I. 133,) tells us of a singular custom that prevailed amongst the ancient Persians. "It is also" writes he, "their general practice to deliberate upon affairs of weight, *when they are drunk*; and then, on the morrow, when they are sober, the decision to which they came the night before is put before them by the master of the house in which it was made; and if it is then approved of, they act on it; if not, they set it aside. Sometimes however, they are sober at their first deliberation, but in this case they always reconsider the matter *under the influence of wine*." This drawing their inspiration from the bottle, as a trait of national manners, is of the oddest. In other words they did nothing without drinking. Some traces of the same habit still linger among their English and Trans-Atlantic cousins; and it often happens, that nowhere do Ministers explain their policy more eloquently and more openly than at a Lord Mayor's dinner.

It appears that the *Rishis* of the Vedas introduced this custom, or belief, into religion. Indra and all the gods are every where represented as unable to perform any great exploit without the inspiration of the *Soma* juice, or, in plain English, until they were drunk.

May our *Soma* libation reach you exhilarating, invigorating, inebriating, most precious. It is companionable, *Indra*, enjoyable, the overthrower of hosts, immortal.

Thy inebriety is most intense, nevertheless thy acts are most beneficent" (*Vol. 2, p. 169*.)

The adorable and powerful *INDRA*, partaking of the *Soma*, mixed with barley, effused at the *Trukadraka* rites, has drunk with *Vishnu* as much as he wished: the draught has excited that great and mighty *Indra* to perform great deeds. Thereupon, resplendent, he has overcome *Kriv* (in *Asura*) in conflict." (*Vol. 2, p. 260*.)

Flavoury indeed is this (*Soma*); sweet it is, sharp, and full of flavour; he is able to encounter *INDRA* in battles, after he has been quaffing this drinking of it *Indra* has been elevated to the slaying of *Vritra*," &c. (*Vol. 3, p. 470*.)

The stomach of INDRA is as capacious of *Soma* as a lake" (vol 3, p. 60) ; it swells like the ocean. (Vol. 1. p. 21.)

"Thou mountest thy chariot willingly, INDRA, for the sake of drinking the libations. (Vol. 1, p. 129.)

INDRA, quaff the *Soma* juice, repeatedly shaking it from thy beard" (Vol. 2, p. 232.)

Again, in a curious conversation (vol. 2, p. 152), Indra and the Maruts nearly come to blows for the sacrificial food. He claims all. They demand an equal share; and *Agastya* (we fear historically) decides in their favour. Hundreds of passages might be quoted to the same purport.

But not the gods alone drew strength from the *Soma*. From the same potent juice the Rishis also sometimes derived their inspiration. Garga tells us (vol. 3, p.) in plain terms "this 'beverage inspires my speech. This savoury *Soma*, drunk on this 'occasion, has been most exhilarating."

"Sages and saints," says *Viswamitra*, "drink together, with 'the gods, the sweet juice of the *Soma*." (III. 86.) But worse is behind:—a lady, named *Viswavara*, writes or sings a hymn to Agni, and offers an oblation, praying amongst other things, for the preservation "of concord between man and wife;" but listen to *Avatsara*'s account of her, and two or three more of his brother *Rishis* (vol. 3, p. 311.);

"Swift is the excessive and girth-distending inebriation of '*Vishwavara* (!), *Yayata* and *Matin*: they urge one another to 'drink: they find the copious draught the prompt giver of in-toxication."

A practical business-like proceeding was this worship of Indra; and it is edifying to observe the easy terms on which deity and worshipper meet together. "Sit down, Indra," says *Viswamitra*, "on the sacred grass;—and, when thou hast drunk the *Soma*, then, INDRA, go home." (Vol. 3, p. 84). "Drink, Indra, 'the *Soma* that is effused for thy exhilaration," sings Rishi *Bharudwaja*; "stop the friendly steeds; let them loose: sitting 'in our society, respond to our hymns." (Vol. 3, p. 454.)

"Who buys this, my Indra, with ten milch kine? when he shall have slain (your) foes, then let (the purchaser) give him again to me. (Vol. 3, p. 170)"

All this is melancholy and degrading—god, worshipper, and the traffic between them. It is but a grade above the beasts, and surely cannot have been in earnest. The introduction of such a worship explains the Greek story of Bacchus, and shows that it was not a lie invented merely to flatter Alexander. This drunken worship, the reclining king, as Curtius paints him, borne to his couch by troops of courtesans after an orgy, those at Lucknow, and wherever he went, so attended, surrounded,—realize and surpass Dionysus, Silenus, and the

Bacchanals. No worship ever mocked the skies, more miserable and contemptible than the religion of the Vedas.

The Soma juice then was the oblation, or libation, of the Vedic worship (the *Homa* of the Parsis); and allusions to it, or laudations, meet one in almost every page. Surely, if there be still question whether the Arians came from India or the Indus, from Aria, the place of the Soma in their worship should suffice to set it at rest. What people in their senses would choose for daily oblation in their households, a plant in a hostile country, or far away to the North of Delhi, and of which the people of Bengal and Bahar probably, unless they were immigrants from the West, most likely never would have heard?

The worship of these old Hindus was very simple. As described in the *Suktas* (we borrow Professor Wilson's epitome) 'it comprehend offerings, prayer, and praise; the former are chiefly oblations and libations:—clarified butter poured on the fire, and the expressed and fermented juice of the Soma plant, presented in ladles to the deities invoked, in what manner, does not exactly appear, although it seems to have been sometimes sprinkled on the fire, sometimes on the ground, or rather on the *kusa*, or sacred grass, strewed on the floor; and in all cases the residue was drunk by the assistants.—There is no mention of any temple, or any reference to a public place of worship,* and it is clear that the worship was entirely domestic: the worshipper himself does not appear to have taken any part personally in the ceremony; and there is a goodly array of officiating priests—seven, and sometimes sixteen—by whom the different ceremonial rites are performed, and by whom, the *Mantras*, or prayers and hymns, were recited." Vol. 1, p. 24.

The priests are thus enumerated in the text of the *Veda*

1. Hotri.
2. Potri.
3. Ritwij.
4. Neshtri.
5. Agnidhra.
6. Prasastri.
7. Adhwaryu.
8. Brahman.

and the householder, who institutes the ceremony. Later writers introduce farther sub-divisions; and assign to each his share of the pay, computed on the supposition that the gift is a hundred cows. They name the proportion each is to receive, and assign each his particular part in the ceremony: but, as usual, differ irreconcilably about them. The Brahman, it will be observed, is only a priest like the others, and three of the other orders

* The sacrificial chamber, or hall was always in the house of the worshipper.

receive equal shares with him. He appears to have repeated the prayers, and to have been the *purohit* or foreman: and therefore on private and everyday ceremonies, where such a host would have been absurd, he alone did all that was necessary: and thus, with the invariable cunning of priestcraft among an unlettered race, he rose so pre-eminence. It is evident also that no one was forbidden to hear or read the *Veda*, for its hymns used at every sacrifice, were then the vernacular. We may notice here as a matter yet *sub judice*, that though five classes of men are repeatedly mentioned in the Vedas, there are no allusions to Sudra or Kshatrya; and that a like division into four classes prevailed amongst the ancient Persians; the 5th probably being captives, enemies and slaves. Arrian makes the number, seven; and it is easy, by taking in or leaving out classes and professions, to make them as few or as many as we please. The spirit of the *Veda* is fiercely intolerant to all of a different faith, or who did not conform to their ritual. The Rishis intreat Indra "to strip of their black skins:"* but any thing like caste, in its modern sense, it utterly ignores. If such a system as caste prevailed in these ages, it is impossible that no allusion should be made to in full five hundred hymns, outspoken enough on other matters.

We are now in a condition to judge of the religion of the Vedas, and to trace its relationship to other creeds. The following tabular statement of the number of *Suktas* in the 500 hymns translated by Professor Wilson, addressed to each deity, sets their actual worship clearly before us.

| | | | | | |
|-------------------|-----|-----|-----|-----|-----|
| Indra, ... | ... | ... | ... | ... | 178 |
| Agni, ... | ... | ... | ... | ... | 147 |
| Aswins, | ... | ... | ... | ... | 28 |
| Maruts, | ... | ... | ... | ... | 24 |
| Mitra, | ... | ... | ... | ... | 17 |
| Varuna, | ... | ... | ... | ... | 20 |
| Ushas, | ... | ... | ... | ... | 11 |
| Surya or Savitri, | ... | ... | ... | ... | 5 |
| Vayu, ... | ... | ... | ... | ... | 6 |
| Rudra; | ... | ... | ... | ... | 3 |
| Brihaspati, | ... | ... | ... | ... | 2 |
| Sarasvatī, | ... | ... | ... | ... | 1 |
| Vishnu,† | ... | ... | ... | ... | 2 |

* One of the least pleasant phrases of the slang of our day, is "White Pandies." Do those who use it, know that the Pandies were originally as white as themselves, and had quite as much dislike to "a nigger?"

† None in the first *Ashtaka*

This leaves less than sixty hymns for all the other and more fantastic denizens of their Pantheon. We have already seen that they also worshipped (whatever that may mean) "the lights of Heaven."

To scholars it is evident that this is nothing more or less than the religion of the Persians, when they first appear on the stage of history. A short extract from Herodotus will enable all our readers to judge for themselves. It is nature worship: not hero worship; and (having no idols) not idolatry.

Herodotus writes;—"the Persians have no images of the gods, no temples, nor altars, and consider the use of them as a folly. This comes, I think, from their not believing the gods to have the same nature with men, as the Greeks imagine. Their wont however is to ascend the summits of the loftiest mountains, and there to offer sacrifice to Jupiter, which is the name they give to the whole circle of the firmament. They likewise offer to the sun and moon, to the earth, to fire, to water, and to the winds. These are the only gods, whose worship has come down to them from ancient times." Book I., p. 131. The deities therefore were the same;* but the ritual was, in certain points, different. "They raise" he adds "no altar, light no fire, offer no libations;—there is no consecrated barley cake." He brings the victim to unpolluted ground—cuts the victim in pieces, and, having boiled the flesh (how did he manage this without fire?) he lays it upon the tenderest herbage (the *kusa* grass of the Hindu). When all is ready, one of the Magi comes forward, and *chaunts a hymn*, which they say recounts the origin of their gods. It is not lawful to offer sacrifices, unless there is a Magus present." Book I., p. 132.

Now for a glimpse of a Persian at dinner. "The richer Persians cause an ox, a camel, a horse and an ass to be baked whole (on their birth-day), and served up to them. They are very fond of wine and drink it in large quantities." Herodotus, Book I., p. 133.

It is certain that there were two rival religions in Persia—the faith of Ormuzd and the faith of the Magi. Of the former Herodotus knows nothing at all; and yet the great inscription of Darius was already engraved on the rock at Behistun. The religion, which Herodotus writes of, was the Magian; and his informer must have been a fire worshipper.† He knew that, on public occasions, victims were sacrificed: but the domestic worship, and the libations there poured out, were probably concealed from

* Herodotus confounds *Mitra* with *Myhitta* but the important thing to observe is that *Mitra* was a Persian god.

† The clumsy blending of these two systems into one is sufficient proof that the Persian worship, in its present form, is a corruption, or a forgery, of a far later date.

him. This would not be so surprising as his ignorance of the very name of Ormuzd—*Akura-masda*, “the all-knowing Lord.” But, with these drawbacks, if we had no other evidence, this alone would suffice to prove that the Hindus and Persians were of the same religion and race.

The Hindu mind, like that of the Persians, was peculiarly accessible to foreign influences; and their faith, so far from being fixed and immovable, has been, as we now know, in a constant flux from the time of their earliest records. We have traces of this in a class of gods (whom we have purposely left unnamed) alien to the national habits of belief, and in sacrifices abhorrent to the simple ritual of the Rishis. The misplaced deities are *Ila*, *Mahi*, *Menu*, *Vayu* and *Nairitti*. The commentators know little or nothing about them; and whenever Hindu commentators are ignorant of the true explanation, as a mere matter of course they invent a false one. So where the Veda is silent, we have nothing to hope from them.

Up to this point we have been treading on safe ground, and noticing facts where is little room for difference of opinion. We now launch forth into the unknown, deeply sensible of deficiency in scholarship, and with little leisure for research. It may savour of presumption, so scantily provided, to bring forward opinions and conclusions at variance with those of the great body of oriental scholars, and which, if well founded, will revolutionize the prevailing ideas on early Indian History. But the days of angry controversy are ended: and, if our views are in the main well founded, they will lose little of their value with those best qualified to judge, because they lack the authority of a name.

Let us follow out, in the first place, the faint indications marked by the names of those antiquated and forlorn deities, coming from where nobody knows, and altogether out of place in the court of Indra.

The first is *Ila*, or *Ilita*. The Veda calls her “*Ila of the hundred winters*,” that is, very ancient. Sir Henry Rawlinson found on a tablet, now in the British Museum, a goddess called *Ili*, or *Bilat Ili*, “queen of the gods,” with a list of 41 titles belonging to her. She was a Babylonian goddess.

VAYU has more frequent notice, and sometimes appears as identical with *INDRA*. At other times Indra is his charioteer. But, when distinct, it is easy to see that there is no fit place for him in the Vedic Pantheon. The haughty *Maruts* wait on Indra. Indra is their king, and Rudra their father. What relationship then is left for Vayu? Again we find a Chaldean God, whose name *Iva*, or *Vah*, is found in a royal family, ruling over “*U1 of the Chaldees*.” The king’s name is *Iva*.

mas-Iva, or *Shamas-Vah*, which (*Shamas* being the Sun) is very near akin to *Indra-Vayu*. This *Iva*, or *Vah*, too is the God of the winds or tempests, and a whirlwind, according to Sir H. Rawlinson, is "a wind of *Iva*." His emblem is a weapon supposed, on the same authority, to be a thunderbolt. A writer in the *Journal of Sacred Literature* for April 1859, suggests a connection between the name of this God and the *JAH*, or *JAH-VEH*, of the Hebrews: but we are expressly told in *Exodus* that the name *Jehovah* was not known to Abraham. *Jehovah* indeed is Semitic and has a totally different signification. Yet it is not uninteresting to find a *Yah* or *Jah*, transferred from *Ur* to *India*, and there, out of place, yet traditionally supreme.

Turning from gods to *Asuras*, we at once reject the etymology of the *Puranas* for that term. There are no *Suras* in the *Vedas* except *Sura*, or *Surya*, the Sun, and therefore no ground for making *Asura*, the negative or opposite of *Sura*. The word "*Asuram*" is translated by the commentator himself "strength" or "lordship." The enemies whom they hated were hostile neighbours or foreign invaders, whom lapse of time transformed into malignant demons. Thus the *Rac-hos*, or people of *Arachosia*, were turned into the fearful *Pakshas* of the popular belief, and the *Assyrians* became *Asuras*. It will be observed that the relations of the *Asuras* and *Suras* were originally friendly. *Vayu* is even called "*Asura*" in the *Veda*. It was after a conflict or war that it changed. For *ASURU* was a well-known and far famed God. But, allowing even the word *Asura* (the Persian *Ahura-masda*) to be of uncertain etymology, we find in the *Vrikhad Aranyaka* (an *Upanishad* of the *Yajur Veda*) that the name of more than one of the ancient *Rishis* was the unequivocal "*Asurayana*."

There are three lists of *Rishis* given in this *Upanishad*, as usual differing from each other. We select a few names in which the first and second agree.

Atreya (Atri.)
 Bharadwaja.
Asuri.
 Aupajandhani.
 Sraivani.
Asurayana and *Yaska*.
Jatukarnya.
Parasarya or
Parasarayana.
 Ghrita Kausika.

Eight descents above *Atreya* we come to the mythological *Ashuti Tvastvar* (*Tvashtri*, the Vulcan of the Greeks) and the

Aswins. Four descents downwards from Atreya we reach the Gotama, Bharadwaja, and Parasara or Parasarya of the hymns. Angiras is the son of Tvastvar.

In the last of the lists we find the following order.—Atreyi (Atri) Gautami, Bharadwaji—Parasari—Varkkaruni—*Arta-bhaga*, but now removed by at least 40 descents from the *devatas*! What is to be remarked is that many of these are not the names of men but of countries. *Asuri* and *Asurayana* speak for themselves. *Paras-arya* is the Arian-Persian, or Parsi. *Kausika* is from Kaush or Kush in Aria; and the *Arta-bhaga* to our mind carries complete conviction. Herodotus writes that the Persians originally were called *Artædæns*, from *Arta* (Herat); and *Bhaga* in the Behistun inscription, means lord or god: so that *Arta-bhaga* is, word for word, lord of *Arta* (or Herat). It will be observed also that Assyrian is before Persian in due chronological order.

The *Vedas* allude also to “strong built cities” “perennial cities” “stone built cities of the Asuras:” and, if these were in the air Professor Wilson observes, that they could not be of much use to Divadasa and other mortal kings, to whom with all their spoil they were given by Indra. It is true that the term is applied to enemies in a general sense in the Vedic hymns; but we have to do with its original bearing. There is surely something also more than an accidental similarity between the giant Asura, BALA “the strong one” and the farfamed Bel, or Baal: between the fierce female Asura, ANI, so often slain in the hymns, and the Assyrian and Babylonian goddess *Ai*: between the Vedic *Drakshina* and the Assyrian *Davkina*; and between the *Anna* of Babylon, the *Anna Perenna* of Italy, and the *Anna Purna*, still worshipped in Bengal.

Again Mr. Colebrooke finds in the 8th book of the Rig, the name of *Nabba-ned-ishta*, a son of Menu, not dwelling with his brethren, which has a startling resemblance to the Babylonian *Nabonud*; and yet the Nebo, or Nabo, dynasty is assuredly not older than Nabonassar 747 B. C. Taking all this in connection with the Greek and (according to them) the Indian tradition also of the invasion of Semiramis, now ascertained to have been the wife of Pul, and therefore later than 800 B. C., and allowing all these links to be more or less obscure, enough remains fairly and clearly to indicate a connection, friendly or hostile, and probably both, between Assyria, Babylon and India. Further, on the famous Kileh Shergat cylinder is read the name of a king, *Ashur-rish-ili*, who boasts of “having conquered all the Magian world.” Sir H. Rawlinson assigns him to somewhere about 1100 B. C.; and makes him the earliest Assyrian conqueror. But if these allusions in the Veda point

(any or all of them) to Assyria, it must be observed that they have already become vague and legendary. It will not be thought pressing the matter too far then, if we assert that probably gods and influences reached the Hindu race from Babylon and Assyria.

Not knowing the intermediate steps, we are led to Greece by the Aswins, and to Latium by Mena, whose legendary springing from Indra seems at least (etymologically also) to identify her with Minerva, springing from Jupiter. In one case at least we have the chain complete. *Anna* travels east from Babylon to India; west from Babylon to Phenicia, accompanies her sister Dido to Carthage, flies thence to Italy, and there, the *Anna Purua* of the Hindus becomes the *Anna Perenna* of the Latians. Such is the Roman legend. *Varuna* too, the sky, or hemispheric firmament, resting on the waters, has obvious analogies with the Grecian *Uranus*. To this god, singly or associated with *Mitra*, are offered the rare and perfunctory prayers for protection from sin, which appear in one or two of the hymns. Still no direct influences from Europe can be traced in the Vedas. Influences here would be too strong a word. They infer rather a common medium; and that *Mena* and the *Aswins*, *Annu* and *Varuna* were not (so to speak) indigenous.

The great horse sacrifice is allowed to have been originally Turanian, whether derived directly from the Sakæ, or indirectly from Persia and Media, where the "white horse of the sun" is an important element in a campaign of Cyrus. Mr. Atkinson found traces of it still lingering on the Southern borders of Siberia.

Niritti or Nairitti, the dread earth goddess, of whom terror and deprecation were the only worship, is all but certainly the evil goddess of the Hill tribes to whom the Khoonds still offer human victims. She seems thrust by fear, rather than adopted, into the Vedic Pantheon—the germ of the bloody *KALI* and the murderers' *BHAWANNI* in a day mercifully late, and to the Vedic men far away in the future. *Niritti* has an ugly look; but, so far as we can see, there is no sanction for human sacrifice in the Vedas. There is a legend, very early, but later than the hymns, of a certain *Sunah-sepas*, borrowed apparently from the offering of Isaac.* A king long childless makes a vow, that, if children are given him, he will offer his first born to the gods. He found it hard to fulfil such a vow; and a Rishi *Ajigarta* offered his son *Sunah-sepas* as a victim in the

* Frequent allusions also are made to falling into a well, and being delivered, to which later writers have added features borrowed from Joseph and his brethren. The well and the wolf seem to us only metaphors for "trouble."

young prince's stead. The father himself binds the victim to the sacrificial post, takes the knife, and is about to immolate his own son, when *Sunah-sepas*, by the advice of Viswamitra, prays to VARUNA, and at the last moment is set free. Nearly all this, however, is mere invention. The hymn, in the Veda, (vol. 1, p. 59,) supposed to be uttered by Sunah-sepas himself, does indeed represent him as bound with three cords to the "three-footed tree" or sacrificial post; but he prays that he may see his father and mother again, have much wealth, and be freed from sin; and refers obscurely to some change or failure in worship, which might have offended Varuna. The bonds, most probably, are but allegorical bonds: but we have little doubt that the imagery is drawn from real human sacrifices, offered by the wild tribes in the neighbourhood to Niritti, "with unfriendly looks," as she is expressly named in this *Sukta*. The legend may perhaps point to an earlier practice, which *Viswamitra* and his party set themselves against. A god named Nairia, of a fierce and evil nature, is said to have been worshipped by the Sakæ.

It appears, on the whole then, that there were two forms of worship in Vedic India; the one, domestic, universal, celebrated three times a day;—the other, rare and exceptional; but both blended by a compromise into one incongruous whole; and both gross, and sensual, almost beyond belief. The worship of the elements is clearly the national faith, with its offerings of the fruits of the earth—Soma juice, barley, milk and butter. Animal sacrifice is from without, corrupted more and more, and at last losing sight altogether of its original import, and coming to them perhaps from the wild nomads of Central Asia. The fair inference is that Indra and fire worship was the later form on Indian ground. The so-called aboriginal tribes sacrifice buffaloes and other animals: but there is no trace of fire worship among them. On the other hand the *Viswamitras*, or *Angirases*, claim the honour of having been the first to introduce the worship both of Agni and Indra, in various *Suktas* of the Veda. Whatever the Rishis may say, *Viswa-Mitra* was not the name of a man, but of a body of immigrants;—*Viswa-Mitra*, "the men, or people, of Mithra." Whichever had precedence in time, there they stand, face to face, Cain and Abel. But the seeds are mixed, and the living God forgotten. The one worships dead matter, until it becomes senseless as its stocks and stones. The other deifies Satan, imagines foul evil and bloody demons, and becomes bloody itself and foul and cruel, like its manufactured gods.

The origin of the first form among a rude people is easily to be found. Monsieur Ferrier, the other day, among the hills beyond

the Cabul river, shall tell us how it was; though for the words within brackets we alone are responsible. He is describing a tempest, and using unconsciously almost the words of the Veda. "To the roar of heaven's artillery (*Indra*) succeeded the wind ('*Vayu*'); first in gusts (the *Māruts*), finally in a hurricane (*Ru-ṛda*), which tore up trees by the roots and carried them to a distance. Blocks of granite were hurled down the mountain side, and clouds of dust, earth and stones, mingled with moss and leaves, were whirled into the air, and formed clouds ('*Vritra*'), which added to the darkness, a deluge of rain followed the fearful features of this furious storm."—(*Caravan Journeys*, p. 247.)

Here we have all the details of that terrible fight, where *Indra* put forth all his might, destroyed the dark fearful *Vritra*, and let loose the rain (the cows) to fertilize the land of his worshippers, and to give them wealth and food. It is represented as his greatest exploit in 18 Suktas.

Such a religion could never have had any heart. It was scarcely serious. The Rishis address *Indra* in the most disrespectful and indelicate terms,* using comparisons much too coarse for our pages; and it rapidly degenerated into wantonness, gluttony and drunkenness. It still lingers in Bengal in the worship of the bloody *Kali*, where all castes mingle together, and, after a libation of ardent spirits to the goddess, drink spirits, and eat flesh, as their fathers did in their golden Vedic prime. It is found also to this day in the foul and secret rites of the *Tantras*, too abominable for Christian ears. But what was then done openly and unblushingly is now done with the feeling of shame and guilt. Even this is progress.

It is not our purpose to narrate how *Vishnu* dethroned *Indra*, of which the germ appears in the later hymns; how the foreign *Mahadeva* and *Bhawani* came in with the *Sakæ*; how *Buddha* drove both before him, and reigned paramount in India for nearly a thousand years—he too probably a *Sakyan*; or how *Vishnu*, *Brahma*, *Siva*, *Durga*, *Kali*, *Rama*, *Krishna*, *Ganesa*, *Kartikēya*, and a host of new divinities, prevailed over a better faith than their own about 1200 years ago, and enslaved and degraded the Hindu. Our business is with Vedic times; and we turn now to another part of the field.

The Vedas in one sense contribute little to history or chronology: in another sense, they lend invaluable aid. They remove

An example or two of the less gross will suffice. "*Indra* is strengthened by praises, as a horse by drinking water." He scatters his enemies, as "a horse scatters the flies with his tail;" and, grumbling because part of the Soma juice was offered to the *Maruts*, he thus addresses a Rishi, "Wherefore, brother *Agastya*, dost thou, who art my friend, treat me with disregard? verily we know what is in thy mind: thou dost not intend to give us anything" (*Vol. 2, p. 160.*)

mountains of falsehood. The Greek writers testify that the Indians in their time were a truth-telling race; and there seems no reason to doubt this evidence. When a legend appears in the *Suktas* we take it for what it is worth; but when a Rishi tells us that a certain king gave him ten cows, and dwelt in a certain place, he may fully be trusted for the cows, and for the names of the king and the country. These are the postulates on which we rely; it is not taking very much for granted. Usually the hymn writers speak truth; universally their Puranic successors write, invent, pile up, delight in falsehood.

It is agreed that the Vedic Hindus call themselves *ARIANS*—a name perhaps related to *Harri*, the Sun. Indra, say the Rishis, has given the land to the Arians. Let it be remembered that as far back as the times of Darius Hystaspes, the early writers placed Indians on both sides of the Indus, and made India extend westwards fully to Candahar (Gandhara). The name was always India, from the Sindu or Indus, the great river of the country.

Aria proper lay west from India about the Arian lake latterly: but the Eastern Medes and Parthians were its distinctive people, "Arians of the Arians." Latterly Medes, Persians, and the tribes between the Medes and the Indus were to a certain extent amalgamated under one rule; and Ariana stretched loosely from the Indus to the Caspian Sea. Here is ground for ambiguity. But India beyond the Indus was always India, and was never called Aria by any writer, native or foreign. Yet the Vedic writes call themselves Arians; and hence a theory that the Arian nations come from Hindustan. Some will have them emigrants from the Gangetic provinces, from Behar and Bengal.

Is not this a parallel case? Norman Henry, or Norman Richard, says, "God has given this land to the Norman." It was truth; but Britain did not cease to be Britain, or England England; and the Normans were *not* a British race. Another race was in the country before these Arians, named by them in fierce contempt *Dasyus*, or "slaves." And they made slaves of them (the true "servile race" of Menu and later writers) whenever they could. What the Norman was to the Saxon, the Arya was to the Dasyu: but crueller and more implacable.

It is admitted also that the Vedic Hindus dwelt chiefly on the banks of the Indus and its confluence: as high up as Cashmere, as low down as Cutch and Northern Guzerat. "Aryavarta" the Arian's portion, as defined even in later times, was the country "South of the Saraswati, and North of the Drishadvati." Professor Wilson more than hesitates, and Dr. Wilson refuses, to believe, that two branches of the Caggar (near Thanesur) an insignificant stream that loses itself in the

sands, are the Saraswati and Drishadvati meant. If so indeed the famous "Arya-varṭta" would be a little smaller than a small English county, a little larger than a large parish. In the hymn, (vol. 3, p. 504,) the *Saraswati* is described, "as breaking down the precipices of the mountains," fierce, mighty, vast, impetuous, overflowing her banks, "having seven sisters," as infinite, splendid, progressive,—evidently pointing to one of the great confluent of the Indus, and absurd, as well as geographically impossible, as applied to the Sursooty of the Cagar. To our mind, the Saraswati is most probably the Ravee, the ancient Iraotes, that is *Ira* (or *Arya-vatī*): and the name *Saraswata* is always and only given to the people of the Punjab.

We shall attempt to trace their Eastern and Southern boundaries, which were fast extending, as we find them in the first 500 hymns. Among the enemies subdued by the help of Indra, we find the great *Arbuda*, supposed by all scholars to be Mount Aboo on the *Aravali* hills. Another robber chief, destroyed by Indra, named *Kuya*(va), has two wives whom Kutsa (his conqueror) not very gallantly wishes to "be drowned in the depths of the *Sipha* river" and whose haunts are between the *Anjasi*, *Kulisi* and *Verapatni* rivers (vol. 1. p. 268.) In the U. K. S. Maps, we find a town still called *Kaya*, and in its vicinity the *Sipu*, *Bunas* or *Anas*, and *Kalindi* rivers; sufficiently identifying the locality of *Kuyava*, and close also to *Arbuda* or *Abu*. As the *Nerbudda* is not mentioned in the published hymns, they had not then crossed the *Vindhyan* hills. They had not reached *OUJAIN*, *Chittore*, or *Oodipore*, and the river *Chumbul* does not appear to be known to them. On the North, we have notices of the *Jumna*, *Sarju*, and *Goomti*: and one allusion to the *Gangu*. There is fighting on the *Sarju* between Arian chiefs: but they appear to have felt their way eastward, along the base of the *Himalaya*: and their silence is a significant indication that, though on the verge of discovery, the great *Ganges* was yet unknown, or that they knew it only in its northern course. They were *Punjabis*, *Sirdians*, *Cashmirians*, *Guzeratis*, and *Delhi men*, if you will: but the kingdoms of *Magadha* and *Mithila* and *Ayodha*, transferred to the Vedic times, are mere MYTHS. The seat of Vedic power faith and learning was between the *Jumna* and the *Indus*: and all to the East of *Delhi*; or *Indraprēstha*, lay north of the 28th parallel of latitude. In the time of *Seleucus* it had come down to *Patna*.

It is simply not credible that men should leave the fairest provinces of India to establish themselves on the *Indus* and the rivers of the *Punjab*. As soon as the *Arians* discovered the fertile valley of the *Ganges*, they rushed into it, as men rush to the diggings in our days. But that discovery was later (perhaps

but a very little later) than the Vedas. There can be no reason given, if Patna, Oude, Mathura, Allahabad, and Oujein, were the original settlements of the Arians, or were Arian cities at all, why the hymns and hymn writers ignore them altogether, and are found only in connection with the Sindu, Saraswati and Drishadvati (the Caggar). As soon as ever they had a chance, Hindu faith and Hindu literature floated down the Ganges, where the land was good and rest pleasant: and the Sindu and the Saraswati were deserted for a richer heritage.

Hindustan, in Vedic times may be thus described. Along its western coast dwelt races different from the Arians of the Vedas—earlier colonizers or emigrants, most probably from Assyria, who had a civilization of their own and “iron built cities”, and and with whom the Pharaohs and Solomon and Hiram and the Cushite Arabs of Yemen carried on a lucrative trade by sea. This people extended gradually down the coast to Cape Comorin, crossed over to Ceylon, and crept up the Coromandel coast, till stopped by the Godavery and Mahanadi.

All the Bengal Presidency and Central India was thinly and sporadically inhabited by a Tatar, Sakyian, or Mongol race, coming down from Tibet and Nepal. So sparse was the population that in the Veda, Agni is represented as “the general” of *Nahusha*, the first settler: that is, they cleared the ground by burning the forests: and some fine descriptions are given of the grandeur and terror of the sight. In the North West were the Arians.

After all we can but guess at truth; but when such guessing agrees on the whole with the known facts, it helps to give an intelligible and sufficiently definite idea of the general state of Hindustan, when the Vedas were being written.

For Arian India, one or two localities may be identified pretty nearly from the Suktas.

There is a Rajah Mandhatri, or Mandhati, in the hymns: there is a city, Mandhati, still near Delhi. If the city was named from the king, it would go far to prove that in his time Hastinapur and Indraprestha were not yet founded, for which also there is Puranic authority.

Again prince Bhujyu, or Bhoojyu, the pirate, whom we have already noticed, is plainly the name, father of Bhooj in Cutch; a nest of pirates in all time.

Among the many petty Rajahs* (a confederacy of twenty is

* The Vedic name is *Raja*. In the Persepolitan inscriptions, Xerxes calls himself *Nagua*, or *Nuka*—the Greek *anax* and there can be no reasonable doubt, that this is the true meaning of the *Naga* dynasties on Cashmir and Magadha. They were kings, not snakes. The turning *Nuka* into *Naga*, and then inventing a snake orship, which latterly may have become real, are quite Puranic.

mentioned in the Veda (vol. 1, p. 147,) one named Divodasa, called also Puru, is specially celebrated: and we may gather that his kingdom coincided pretty nearly with that of Porus in the time of Alexander. He is at war with Su-sravasa, a King whose name occurs in the Raja Taringini, as connected with Cashmere—perhaps an ancestor of the Abisares of Greek report.

We now turn to the Puranic account of the periods, dynasties, races, genealogies and kings of Vedic India. It looks imposing, minute and circumstantial. The two great dynasties of the Sun and Moon, branching off into separate kingdoms; the four ages of the world, with an accurately defined list of kings for each, and these lists so framed as in appearance to strengthen and support each other,—containing also the very names found in the Vedas, with an elaborate system of dynastic changes, of inter-marriages—all these, sanctioned as religion, and received with universal national consent, take the imagination by storm, and impose on the calmest and clearest reason.

It is only when it is found by nearer approach or unexpected testimony that this giant is a man of straw, that one wonders at one's own blindness.

The Hindu of the middle ages had an immoderate, incredible fondness for elaborate falsehood. The care and painstaking which they devoted to this purpose, fill the mind with amazement. Was there ever anything elsewhere in this wide world like the *Raghava Pandavya*? What was the *Raghava Pandavya*? Colebrooke shall tell us. "This extraordinary poem" writes he, "is composed with studied ambiguity; so that it may, at the option of the reader, be interpreted as relating the history of Rama and other descendants of Dasaratha, or that of Yudishthira and other sons of Pandu." The example of this singular style of composition had been set by other writers: but none like Cauraja "told *two* distinct stories in the *same* words!" We take a single sentence as a specimen. It may be translated,

"Succeeding in youth to the kingdom of his variously valiant father, who departed for heaven, he dwelt happily in the city of *Apodya*, which was adorned with elephants, and upheld the prosperity of his realm."

or
"Succeeding in youth to the kingdom of his father *Vichitravirya*, he dwelt happily in the peaceful city of *Hastinapura*, auspiciously inhabited by *Dhritrashtra*?"

The Sanskrit verse will be found in Colebrooke's Essays, (vol. 2, p. 100:) and so the poem goes on from beginning to end.

The men that could contrive, and the nation that could appreciate, such perverted efforts of the imagination, were worthy of each other. In such a soil only the Yogas and genealogies of the Puranas could take root, and grew up to Heaven. All this,

mass of names and dynasties and ages is nothing else than audacious falsehood and invention, the little leaven of truth contained in it being the names of a few Vedic kings, stuck here and there apparently at hap-hazard, which, because they represent truths, suffice of themselves to dissolve the monstrous fabric, and to disperse into thin air this enchanted castle in the clouds. Whatever facts they contain depend wholly on the authority of the Vedas. There are no other (there never were any other) sources of early Hindu history known to them or to us. We speak of the time before Darius Hystaspes and Alexander.

Supposing even the Vedas still unknown, and taking the lists, as we find them in Prinsep's Useful Tables, one's faith requires a very strong digestion to get over the first 2 or 3 pages. Setting down as facts not to be questioned, that two dynasties came down in direct succession from the Sun and Moon, and that two out of the four *Yogas* are chronologically determined by the heroes of two epic poems, as real flesh and blood, in all probability, as Lancelot de Lac, and Rinaldo, or King Arthur himself and Lucius, Emperor of Rome, we find the two solar dynasties of Ayodhya and Mithila starting from the *same* point;—but RAMA, the 60th King of Oude, marries Sita, the daughter of the 22nd King of Mithila—the chronological gap between them being at least 400 years. If we attempt to put things right by supposing 30 or 40 names to have dropped out, then what is the value of the lists?

Turning back to the beginning of the Mithila list, and the Puranic beginning of Hindu history, we find at the head of it Nimi, *Janaka*, *Udvasu*, *Nandiverdhana*. Nimi runs through nearly all the *Yogas*; but to our amazeinent we find among the kings of Magadha, less than 100 years before CHANDRA GUPTA, all the other three, *Janaka*, *Udvasu* and *Nandiverdhana* again. Sir W. Jones places their first appearance more than three thousand years before Christ; their second is little more than 300.

We could point out many more contradictions and absurdities like these: but it is not worth while. Lists that vary, incongruities, extravagant and revolting fables with no redeeming poetry, anachronisms, falsehood of every shade and degree, from the plain bold lie to the sublime of elaborate subtlety,—form the staple of all the Puranas. It is sometimes really amusing. The writer of the Vishnu Purana, in such a simple matter as a list of rivers, puts down all he can remember (some twice over) and then, thinking his list not sufficiently imposing, fil's it up with the names of about a dozen *Rishis* taken bodily from the Vedas!

Partly from the skill and elaborateness of the fiction, and partly, from the mutual support which the Brahminical writers

gave each other—astronomy, poetry, legend, chronology and history all helping on the deceit—it has been the custom with modern scholars, to receive with certain reservations, but after all to receive, the dynasties as real dynasties, and with considerable latitude as to their beginning to have faith, as historical eras, in two or perhaps three of the *Yogas*. What is the verdict of the *Rig-Veda*? It knows nothing of such periods. Their names are not once mentioned in the *Veda*; nor is *any* allusion made to them. It knows nothing of Solar or Lunar races: knows nothing, and can indeed know nothing, of Ayodha, and Kasi, and Mithila, and Vesali, and Magadha, or even of Indraprestha: while the *Puranas* on the other hand know nothing of dynasties in the Punjab or on the Indus.

•Were the *Vedas* then written before the Puranic dynasties? The chief names in both are alike; and the Puranic dynasties go back to the Sun and Moon.

The *rationale* of the whole matter is not far to seek. In that after time, when the Arian name was dead, and Indian empire was transferred to the Jumna and Ganges, each court had its tribe of Brahmins, who, to please the monarch and the people, concocted for each a genealogy, held together by a few of the old Vedic names, running back to the Sun or the Moon, and filled up with kings invented at discretion:

Again what mention is made in the *Rig-Veda* of the great demi-gods, or *Avatars*, Rama and Kṛṣṇa? None. There is only one possible way of accounting for the complete silence of the *Vedas*. Rama and Krishna were later than the hymns. Were it otherwise, every hymn would be full of their exploits. We cannot here keep out the genealogies. We find a group of Vedic kings in immediate succession; Mandhati, Purukutsa, Trasadasyu, and two princes, who write a hymn along with the latter, Tryaruna and Aswa-medhaya. Four of these are found in Mr. Prinsep's first list and in the same order, with a break however of *five* names between Trasadasyu and Tryaruna. Mandhati is in the lists the 20th from the head, and forty names before Rama. Allowing 13 years as a fair average for so long a succession, Mandhati will be about 250 years from the Sun, and 500 before Rama.

Let us now take a second group of kings from the *Veda*. We choose Aswamedhaya, Nami, Chitraratha, Sunitha, Swanaya, Vrihadratha, Sudas. In Table XIX. of Prinsep, among the *PANDU* princes of Indraprestha, we have the corresponding Puranic group, Aswamedhaya, Nami, Chitraratha, Sunitha, Sunaya, Vrihadratha, Sudas: but all these princes, according to the *Puranas*, reigned in Delhi *after the death of Judishtir*! Sudas was full 250 years later. Let us look this matter fully in

the face, using the short 13' year averages, instead of the fabulous periods of the Puranas. According to the lists, Mandhati is 500 years before Rama, Rama 450 before Judishtir, Aswamedhaya about 50 years later. The Puranas therefore put about 1,000 years between Aswamedhaya, and Mandhati's grandson. The Rig-Veda affirms, as we have already seen, that they were contemporaries!

More important results follow: Rama is nearly 700 years earlier than Sudas, 500 later than Mandhati. With a mere change in the figures, this is true of Judishtir, and therefore of Krishna also: and so, we are led to the inevitable conclusion, that Rama and Krishna are only poetic heroes, and do not belong to authentic history;* and the Yogas vanish into their air.

It is thus indirectly that the silence of the Veda is often more valuable than its express testimony.

It will be observed that we have chosen groups rather than individual Kings, to avoid being misled by casual similarities of name. Our next step leads to the history of a single monarch, a conqueror and a poet, once the pride of the Indo-Arian race, and, if we mistake not, yet again to become famous. He has many names Divodasa, Atithigwa, Aswattha, Prastoka, Srinjaya, and (last and most interesting) PURU. Three of these names are found in one verse (*vol. 2, p. 34.*)

"For Puru the giver of offerings, for the mighty Divodasa, 'thou, Indra, the dancer, hast destroyed ninety cities.—For Atithigwa, the fierce (Indra) hurled Sambara from off the mountain, bestowing (upon the prince) immense treasure." The ninety, or ninety-nine, cities of Sambara are wearisomely familiar to the readers of the hymns; and Sambara was probably an ancestor of the Sambas, whom Alexander found ruling the hill country on the lower Indus.

But first (to have done with the lists) as Divodasa, identified by two of his sons and by there being no other Divodasa, he is king of Kasi (Benares,) and 12th in direct descent from the Moon. This will make him only 150 years from the fountain head. As Puru, with two of his sons more obscurely intimated, he is the head of the line of Puru, and 16 descents earlier than BHARATA, who, in the Vedas, is represented as his ancestor. Here he is less than 100 years from the fountain head. Again, as Atithi, (the only Atithi in the lists,) he is RAMA's grandson, and full 700 years behind his former time. There is another

* Rama is nowhere found, except in the apocryphal list of Kings of Oude. Krishna is named in the Vedas, once as a Rishi, frequently as an Asura, destroyed by Indra, with 50,000 other Krishnas, as black as himself. His name is nowhere found in the lists. JUDISHTIR the first, appears as a blind King in the Rajah Tugung, about midway between Asoka and Vikramaditya!

and a curious blunder in regard to this king; in all that relates to him, the lists are singularly unlucky. They call him a *Buddhist*. It will be seen at once how this arises. Divodasa is very much akin to 'Piyadasi,' the grandson of Chandra-gupta: and they have mistaken the one for the other.

We have now done with the lists. We trust that we have indicated the way; and that others with greater talents and greater leisure, the amiable learned and accomplished Lassen, Dr. Müller, our own two Wilsons, Sir Henry Rawlinson and Mr. Latham, will thoroughly clean out the vast Puranic stable, sweep away its masses of foul deceit undisturbed for centuries, and let the sweet air and the clear light of truth into the early history of India.

• The identification of Divodasa with Puru will be a decided step in advance, pregnant with important consequences. A direct text has been already quoted. There is also strong collateral evidence. Yayati had five sons—Yadu, Turvasu, Druhyu, Anu and Puru. Here the Puranas and Vedas are at one. Yayati however was not their father, but a remote and perhaps mythological ancestor. We may accept them however as five brothers, descendants of Yayati. Turvasu and Yadu are frequently mentioned together in the Veda in connection with a voyage or inundation, from which they escaped in safety. Were they contemporaries of Divodasa? In a great battle, of which we shall speak immediately, Turvasu is delivered to Srinjaya, either Divodasa, or his father: for Divodasa is Prastoka, is Atithigvan, is Aswattha, is the son of Srinjaya, as we are told by Garga, (*vol. 3, pp. 474, 475*), who receives cows, clothes, food and gold from him. In another place he is named Bharata, that is a descendant of Bharat, as he may be here named Srinjaya, as a son of Srinjaya. In any case, he is contemporary with Turvasu and Yadu; and may well be their brother, or the celebrated Puru, as the Veda expressly declares.

We have also a clue to his locality. The father of Srinjaya, or Bhadriaswa, was *Deva Vata*. We have a hymn of Devavata (*vol. 3, p. 25*), in which he describes himself as the son of Bharat, and dwelling on "the frequented banks of the Drishadvati, 'Apaya (the Beas?) and Saraswati.'" We know that Puru gave his name to a dynasty: we know that the Kingdom of Porus was here or in the immediate neighbourhood: and we venture to believe that the Puru of the Veda was the ancestor of the gallant and high-spirited Porus, the one worthy antagonist of Alexander the Great.

But, if we are not strangely mistaken, the history of Divodasa gives us a Vedic date—that is, the means of determining within two three centuries the time at which he reigned; and thence

a nearer approach, than the most judicious guessing, to the real era of the Vedas.

Divodasa was a warrior and a conqueror. He conquers and destroys many cities of Sambara, reserving *one* for his own use. He makes a successful raid as far as Parnaya. (Can this be Pur-niya?) In his old age, at the head of a confederacy of twenty Kings, Kutsa and Ayu being the chief, he leads an army of 60,000 (the Rishis delight in odd numbers) against "the mighty 'but youthful Su-sravas," is defeated, and compelled to submit. This war, we believe, is the historical foundation for the traditional "great war" of the Mahabharat.

The most interesting epoch of his history however remains to be told. Alone, or along with his father, and in alliance with a Rajah Abhivarthin, he carries on a war with the PERSIANS, is defeated at first, but finally overthrows them in a great battle. His own brother Turvasu appears to fight on the Persian side, which would agree with the tradition of Puru's obtaining the inheritance in preference to his elder brothers. It is stated indeed, in the Veda itself, that Turvasu and Yadu were denied inauguration.

For this battle we have the indisputable contemporary authority of the Rishi Garga, who receives part of the spoil of Varchin and Sambara. The Rishi Bharadwaja gives like testimony to the liberality of the two conquerors. We quote Bharadwaja (vol. 3, p. 437).

5. Favouring Abhyavartin, son of Chayamana, Indra destroyed the race of VARANIKA, killing the descendants of Vrichivat on the HARIYU-PIYA, on the eastern part, while the Western (troop) was scattered through fear.

6. Indra, the invoker of many thirty hundred mailed warriors were collected together on the *Favya-vati* to acquire glory: but the *Vrichivats* advancing hostilely, and *breaking the sacrificial vessels*, went to annihilation.

7. He, whose bright prancing horses, delighted with choice fodder, proceed between, gave up Turvasu to Srinjaya, subjecting the *Vrichivats* to the descendant of Deva-vata.

Bharadwaja adds that Abhyavartin gave him two damsels riding in cars, and twenty cows.

All will admit, that a "western" troop near the Hariya-piya (Aria Palus, now the lake of Seistan) called Varasikas, can only be the Persians; and this is the name Professor Wilson gives them in the Vishnu Purana.* That the Hindus made incursions quite as far from home we learn from (vol. 3, p. 279,) where Namuchi is, thus spoken of, an enemy of Rinanchya, Raja of the Rusamas:—"The slave made women his weapons. What will 'his female hosts do unto me?'"

Monsr. Ferrier, in his most interesting "Caravan Journeys," fell among the Bi-mak Hazaras on the Murghab river, and other

tribes about Dev Hissar, more to the North and East. Their women take part in every war, manage the horse, the sword, and the firelock. Their courage amounts to rashness, and they are more dreaded than the men for cruelty and fierceness. He himself saw them under fire in the foremost rank. (See pp. 194, and 237.) It is, and so far as they know, has always been a national custom. Here we have an intelligible explanation of the Amazons of Alexander, and the "female hosts" of Namuchi.

Taking it for granted that Divodasa fought with Persians, if those Persians held the faith of Ormuzd* the Behistun inscription amply explains the hatred they would feel for the Hindu fire-worshippers, and their *breaking the sacrificial vessels*. We are not without hopes that Varchin, and the *Vrichi*, or *Vari-ohi-vats*, may yet be explained. At present, we would suggest for Vrichi-vats—the translation Persian lords, or Persi lords—the *vat* being the Sanscrit, *Vaṭi* or *Pati*. For the *v* and *p*, are usually* interchangeable; and *Purasi* and *Varasi*, are the same word.

We have no right, historically, to believe in a Persian army before the days of Cyrus: but the Behistun inscription authorizes six Kings before him. The earliest of these can scarcely be placed more than 600, or 650, B. C.; and it may be supposed that the Persians first became an independent, or at any rate a district, kingdom, during the great Scythian invasion in the reign of Cyaxares.

This might indeed have been the external force that drove the Viswamitras into India. The Viswāmitras are known as Kushikas or Kaushikas; that is they came from Kush, to this day the name of a river near the Aria Palus, where M. Ferrier found the ruins of a large place called Kussan.† The Kushan, he tells us, were a famous Scythian race, who held Balkh in remote antiquity. Sir H. Rawlinson found their bricks, with cunei-form Scythic legends at Susa and on the Persian Gulf. We hold that the Scythians did not come to the Cushites; but that the Cushites colonized Mongolia, as they colonized Arabia, Ethiopia and the N. Coast of the Indian Ocean.

INDRA himself is called (vol 1, p. 27) a son of Kusika; the

It is certain, from his own record, that Darius Hystaspes worshipped Ormuzd; and it may fairly be inferred that the Magian fire worship was most prevalent in Media. But we can see nothing *dualistic* in the inscription. The "hc" is not applied to Ahriman, but to the Magian sect; and the name of Ahunna has nowhere yet been found on brick, cylinder, tablet, or monument.

† How largely *Cush* is a local nomenclature in Central Asia! The Caspian Sea Cashgar, Cashmere—Khas—Saks (Sack or Cossacks) Caucas—as (Khas-mountain)—Cossaki, or Cissu in Persia, the Bal-Kash lake and the Kush of the text, and these are but a mere sample.

Viswamitras are Kushikas, while Purukutsa, son of Mandhati is a "Girikshita" that is, from the neighbouring town of Ghrishk.

Returning to Divodasa, his genealogy upwards runs thus:—Divodasa, Srinjaya, Devavata, Bharat, who is traditionally son-in-law of a "Viswamitra."

If we are correct in dating the introduction of fire and Indra worship by the Viswamitras (supplanting an earlier Sun worship by earlier immigrants) from the Scythic invasion, these five descents will bring Divodasa very nearly or quite to the time of Cyrus; and we may suppose the engagement to have taken place with some Satrap (*Kshatra-pa*), left by Cyrus, when he was occupied with his great Median, Lydian, or Babylonian campaigns: or it may even have been during the rebellions and troubles in the early days of Darius Hystaspes. By a curious coincidence Bentley places Garga (the bard of Divodasa) in 548 B. C.; and the cautious Professor Wilson suspects an allusion to the Buddhists, which could not well be earlier than 515 B. C.

Our conclusion amounts to this. Certain hymns and certain kings are not older than 600 years before the Christian era. We have not data for even guessing how far the earlier hymns go back into antiquity. They may have formed part of the Magian ritual in another land; we know that they were first sung on the banks of the Indus by the Viswamitras.

A word in conclusion on Vedic astronomy. There is no mention of lunar mansions. The year consists of 360 days. The cycle for worship is five years, in the last probably there was an intercalary month, to adapt the lunar to the solar year, or year of the seasons. We find only one name of a constellation or division of the heavens. It is *Tishya*. The same name, as the name of a MONTH, and a sign, is found in an edict of the famous Piyadasi. The "ancient" names of the months therefore, as the Puranas call them, are later than Asoka, for nothing like *Tishya* is found among them, or in any Puranic work.

We would identify the Aswins with Cancer.* Præsepe (the cluster) is the chariot. There are three stars forming a triangle; and two of these Greeks and Romans alike called "the Asses" (Aselli, Onbi) from the earliest times. This accords with the chariot, the 3 wheels, and the two asses of the Vedic Aswins (the riders, from Aswa, a horse, or lord of horses)* too closely for a mere coincidence. Ninety degree from Cancer, are the three stars in Aries, which as Indra is twice called a Ram, may be accepted as the horse's head (an asterism of three stars), or the place of the vernal equinox. The Aswins will then repre-

* An early Aswa dynasty, probably Scythian, may be traced in the lists.

sent the upper Solstice; and Pushan, riding on his goat, the lower, on capricorn. Such a position they actually held between 500 and 600 B. C. Vedic astronomy therefore was of the rudest. How baseless are the notions of it derived from the Puranic age may be judged of by the fact, that Bentley, from astronomical observations, places Rama about 900 years before Christ, and Krishna 600 years after the Christian era. We suspect he really wrote 600 before it.

There is a curious abstract of Vedic astronomy in the 2nd *Ash-taka*, Vol. 2, pp. 126, &c., of which the following is an epitome. "I have seen the Lord of men with seven sons." Sayana explains these to be the seven solar rays,—whatever that may mean. Compared with other passages it would really seem to mean the seven colours of the spectrum. In vol. 1, p. 62, there is a distinct allusion to the Zodiacal light.

The 2nd verse shows that they had a week of seven days. "They yoke the seven to the one-wheeled car; one horse, named seven, bears it along."

The 11th and 48th verses intimate the division of the year into 12 months, 360 days, or 720 days and nights. "The fellows are twelve; the wheel is one:—within it are collected 360, which are, as it were moveable and immoveable," v. 48. "Seven hundred and twenty children in pairs abide in it (the twelve spoked wheel.)"

For the cycle of five years, the earliest in India, we have "all beings abide in this five spoked revolving wheel." V. 13.

They divided the year into three seasons, as we now do, the hot and cold weather, and the rains; and into six (perhaps a more ancient division) of two months each. The earliest names known to us for these are the following, whether they were Vedic names is another question:—*Vasanta* (spring or flowery,) *Grishma* (the hot season,) *Varsha* (the rainy,) *Sarada* (the sultry season,) *Hemanta* (the frosty season,) and *Sisira* (the dewy season.) The *Hemanta* indicates a Northern people; and the whole arrangement reminds one of the French Directory, with its *Floreal*, *Germinal*, &c. For the three seasons, verse 2nd tells of "the three axled wheel:" for the six of two months each, and the one intercalary month, we find in v. 15,—“of those that are born together, sages have called the seventh the single born; for six are twins, and are moveable, and born of the gods.” The luni-solar year and ascending and descending signs are noticed in verse 19, ending “Those (orbits) with thou, Soma and Indra, (the Moon and Sun) hast made, bear along the worlds.” When, in a *Sukta* abounding in such minute details, we find no notice of the 27 or 28 lunar mansions, we may be very sure they were not known to the writer, and are therefore later than the latest.

Vedic times. Any observations therefore, pretended to be founded on them, can only be forgeries, or parts of that elaborate system of computing backwards in later ages which has given a fictitious antiquity to the astronomy of the Hindus.

The Sukta from which we have quoted, is given to Rishi Dirgha-tamas, the son of Mamata: in other words, "long continuing ignorance, the son of egotism," evidently a name for the 'nonce.' It is very long, containing 52 verses, full of mysticism and fancy, and not without gleams of poetical genius. It has been asked how long time should be allowed for the interval between the rude, hearty, inartificial Vedic hymn, and the subtle and elaborate Upanishad. Unless the Suktas, ascribed to Dirgha-tamas, are an interpolation, there was no interval at all. They are in form and substance an Upanishad, differing only from the other Upanishads in the absence of the puerility and the unutterable filth that characterize Brahminic literature. In the Brihad Aranyaki alone, we find page after page which the translator dared not render into English. The Vedic hymns are rarely coarse, still seldomer indelicate, and never filthy. *That* came in with Siva—personified foulness.

We cannot here enter on the interesting field of comparative philology; nor is it necessary. There is no dispute that the language of the Vedas and of the Persepolitan inscriptions was substantially the same.

We now take leave of the Rig-Veda, and submit the views which we have suggested, for the decision of those qualified to judge.

ART. VIII.—*The Life and Times of Carey, Marshman and Ward, embracing the History of the Serampore Mission.* By JOHN CLARK MARSHMAN. In two Volumes. London : Longman, Brown, Green, Longmans, and Roberts. 1859.

THE prevalent feeling in this country in regard to Mission work is undoubtedly one of resignation. No class now ventures openly to deride or discountenance the object to be attained. Here and there, perhaps, some Hindooized European may still be found, who declares Christianity little better than Hindooism, holds Missionaries to be overpaid hypocrites, and would if he dared subject the "saints" to penal legislation. More frequently officials may be discovered who believe the Empire in itself so rotten, and religious discussion so politically dangerous, that their fears render them actively antagonistic "to the slightest tendency to a proselytizing tone." Still more common are the men of decorous lives and unimpeachable "experience" who hold the attempt to convert, foolish or wise in other lands, a waste of power in Hindostan. This section includes many who are sincerely desirous of seeing Missionaries prosper, provided they have no trouble and are not unduly taxed, and whom success would warm into something like a temporary enthusiasm. On the other hand there are few now even of the warmest friends of Missionary effort who look forward to any immediate result. There is perhaps not one worker or layman, who dare affirm that India will be converted within the century. They are content to abide the will of the Lord, but manifest amidst their patient trust precisely the feeling entertained by the worldly section of the community. The latter hold the work good, even emphatically good, and to be pursued, subscribe when convenient, afford individual Missionaries every encouragement, resent any official check placed upon their efforts, but expect nothing. The disparity between the labour expended and the result obtained, the slight impression Christianity has made upon the mass of Asiatics, the low character of the majority of converts, the egregious vanity which obscures the virtues of the few, and above all the rooted conviction of white men that something more than Christianity is necessary to turn "natives" into men, all these causes have combined to produce a feeling of utter hopelessness. That God will one day reveal his power, and that preaching is meanwhile a duty, are principles they accept. But they accept them as they accept the doctrine of non-resistance, of the unholiness of war, of the obligation of forgiveness, as things absolutely true, but which will never be carried out in their day. They are consequently wholly without energy in

the cause, subscribe—but not liberally, approve—but lend no personal aid, read reports—but never bring the weight of their opinion to bear upon Missionary bodies. The public dictates arrangements in finance, but it never presses for any special Missionary arrangement, never attempts to compel any particular course of action,—as for example a parochial concentration of effort, a pet notion of said public—never even suggests disapproval at the choice of unfit or disqualified Missionaries for the work. One plan is in the public belief as good as another, for all are righteous and all will fail. One man is as good as another, for none without miracles will succeed, and the miracle may be vouchsafed to Balaam as well as to Elijah. The apostle and the professional, the Missionary whose tongue is tipped with fire, and the Missionary who can preach in no language but his own, are accepted with equal respect, and equal coldness. The Indian world, in fact, on Missions is simply resigned.

We may discuss hereafter to what extent this feeling, which though it resembles indifference is in fact widely apart from it being positive and not negative, is justified by existing facts. At present our object is simply to point to the narrative which affords a title to this article as an admirable corrective to a state of thought which, however natural, is to be regretted. Mr. Marshman's work—the “Lives of Carey, Marshman and Ward”—is not simply a great contribution to Protestant Hagiology. It is a history of the Missionary cause during its first struggles, of its toilsome march up the Hill Difficulty before it reached that dangerous because enticing plateau, that pleasant arbour where one loses the roll, where it now appears to pause. There is no difficulty which now besets Missions which these three men did not meet and in large measure overcome. There is no difficulty which can impede any undertaking, be the obstacle social, or personal, or political, whether it spring from religious bigotry or profligate licence, whether it be created by the envy of friends or the malignant calumnies of opponents, by the direct hostility of power or the silent hostility of circumstances, which they did not survive. And when, in the fulness of time, the labourers begin to reascend, when in the course of ages they draw nearer to that summit on which the sunshine from on high perpetually rests, there will be we believe no impediment in their path which the Serampore Missionaries had not foreseen, no chasm for which they had not planned a bridge. Wise as they were however it is not wisdom which is to be learnt from the story of their lives, or we could spare the tale. There is wisdom enough in a dozen sentences of St. Paul to feed all the Missions these generations are likely to see established. The assurance which those lives convey is that effort is *not* resultless, that the difficulties are

not insuperable, that if in the faith of the Most High we have the courage to endure and to attempt, the patience and the effort are certain of their reward.

William Carey, the founder of Missions, was in 1786 a cobbler, and a bad one. That he was a cobbler we know from his own repeated statement, made without humility as without exultation. That he was a bad one may be guessed from the fact that while a good workman could make four shillings a day he could barely earn bread to eat. He had to hawk his shoes about on his back, but with their sale, and some trifle of stipend as minister of a little congregation at Moulton, he still had the utmost difficulty in getting enough. He carried traces of that discipline to the grave, one of the most conspicuous being that utter fearlessness of poverty, that cool determined contempt for anything the future could do to him, which men of the day so universally want. Though thus engaged he seems to have acquired some store of knowledge. He was fond of reading, knew a little Latin, and had picked up here and there some acquaintance with Geography, the study which of all others seems most to embarrass the unlettered Englishman. Mr. Marshman calls his knowledge at this time extraordinary. It may have been for his time and position, but we suspect the boundless acquirements of later years shed back an unreal radiance over this period of his life, and that, say in one respect, he differed little from dozens of reading artisans, from Lackington for example who in a similar position devoted equal energy to the lower task of accumulating a fortune. That one respect however changed the course of Carey's fortunes. Throughout his career, whether wearily teaching unruly cubs their alphabet, or making bad shoes, or translating Hebrew, or lecturing in Sanscrit before Marquis Wellesley, one passion pervaded his life. It was the desire to reveal Christ to men who knew not of his message. A strong natural benevolence had been intensified by deep piety, and warmed and elevated by the grace of God, until his heart glowed with that settled fervour which has animated few men since the days of the Apostles, but which, wherever found or however manifested, whether compelling Whitfield to carry the word of life to the heathen of England, or urging Xavier into the secret recesses of Asia, or driving John Howard into the chosen homes of pestilence and crime, or lending Wilberforce strength to stand up against the friends of his youth, and plead to angry eyes and brazen brows the cause of the slave, has always been ultimately resistless. This was the key at once to his powers and his career. Whatever he knew—and he did not know a great deal—it was not knowledge which *compelled* him, a

friendless cobbler with no gift of tongues that he knew of, with a pious world and his own household against him, to exile himself to the tropics, and there tell to men he had never seen the tidings which had already secured his own salvation. The clear internal fire, that flame which when lighted from on high smelts genius into conversion, was burning within him, and from the moment the idea of his appointed work became manifest to his mental sight, but one path was open to him. He must convert the heathen, and if it rained opponents he must just go out in the rain. The fathers of his own denomination, a denomination not then, be it remembered, raised in the social scale by the achievements of himself and his colleagues, reprimanded his foolishness. They had it would seem a notion, which many decent people still unavowedly retain, that human learning was not only unnecessary but positively unacceptable with God.* "God" once growled Robert Hall "God no need of human learning; how much need has he of human ignorance?" and the Nonconformist world has slipped round to Robert Hall's opinion. It had not slipped however then, and Mr. Carey was worried, and bored, and thwarted, and rebuked, and impeded, by littlenesses which educated men can now scarcely comprehend. In him however, as in all really capable men, there was a large fund of patience, an almost asinine capacity to bear which had its root quite as much in contempt as in any nobler feeling. He took the rebukes of the "experienced" and "respectable" ninnies about him very quietly, and next year reproduced his ideas in the same form, and nearly the same language. They began to see the human knowledge dogma was dangerous, so they told him to publish a pamphlet. He published it, and next year stepped forward again, to be put off with some equally futile recommendation. At last however his earnestness conquered their indifference, and in October 1792 the congregation of Kettering resolved to send him to India as a Missionary. The resolve was assisted, and the locality indicated, by the arrival of a Mr. Thomas with glowing accounts of the field opened in Bengal. This man was a character by no means unique in Missionary history, a man of some learning, some real energy, some strong faith, and total pecuniary imbecility. It was decided that he and Mr. Carey should proceed to Bengal together, and the latter finally gave himself to his new career.

A bolder decision never suggested itself to a human being. The Court of Directors who then ruled India as sovereigns were known to be so rancorously opposed to Missions that a passage to Bengal in their fleet was out of the question, and they had the power not simply of deporting but of hanging interlopers. The community with which the Missionary acted were, as a mass,

utterly indifferent to him, and to Hindoos, and to most other things except getting respectable. His own wife raved at the folly of her fanatic husband. Mr. Thomas, though his true character was not yet known, was suspected of reckless improvidence and confessedly in debt. The money raised was barely sufficient to obtain the most ordinary accommodation. Above all Carey himself, with his half knowledge, and to use his own phrase "the 'utter rustication of his youth,'" was to hurl himself as it were into perpetual exile, under a tropical sun, in a land more than twelve months distant from his native soil. Sydney Smith, in an Article his friends ought long since to have suppressed, not for its irreligion but for its want of mental keenness and comprehension of character, charges the Missionaries with escaping from the labour of the last to the pleasanter toil of conversion. It is certain at all events that Carey's family thought his resolution involved a doom equivalent to transportation, that he himself looked forward to a life of manual labour under a tropical sun, and that he did actually for seven years endure that labour. Now the Missionary, filled to the brim with Indian knowledge, lands with a fixed pittance, to be welcomed by a circle of colleagues and to find whole communities his friends. Then the poor Missionary knowing nothing of India, not even whether the jackal screaming on shore was a dangerous beast or not, was pitched out of a ship into a land which afforded no prospect of subsistence, among a passively hostile population ruled by an actively hostile Government. Cultivated men—and it is not the uncultivated who abuse missions—are accustomed to talk of Augustine's mission to England as an event having in it something of the sublime? What did Augustine do which Carey left undone that so vast a difference should be pleaded between their achievements. True, the one succeeded and the other did not, but if mere success is the test of inspiration, Mahommed was greater than St. Paul.

We pass over the minor difficulties of passage and funds. No obstacle of that sort ever yet stopped a human being with a purpose, and the opportunity which finally opened of a passage in a Danish ship, was given by Providence, and due to no effort of Mr. Carey. He landed in India on 11th November 1793, and lived at first in a little house in Maniktollah, a dirty Calcutta suburb, preaching every day to the natives, wandering about on foot, and maintaining his family, his wife, her sister and four children, on some pittance extracted with difficulty from Mr. Thomas. In February 1794 he wearied of Mr. Thomas and his ways, and of Calcutta slums, and betook himself to Husnabad in the Seonderbuns. There among the tigers and foresters he resolved to establish his home, and maintain himself by

manual labour. Why he did not die of low fever and sunstroke is one of those problems which medical men settle by saying that men under excitement never suffer. He was saved from the worst miseries of his position by the offer of Mr. Udney to allow him Rs. 200 a month to superintend an indigo factory. He removed accordingly to Malda, and the following extract will give a condensed view of this portion of his life :—

"No sooner had he accepted Mr. Udney's offer, than he considered it his duty to write to the Society in England, and state that he was no longer in circumstances to need any personal support; he likewise requested that the sum which might be considered as his salary, should be devoted to the printing of the Bengalee translation of the New Testament. "At the same time," he adds, "it will be my glory and joy to stand in the same relation to the Society as if I needed support from them, and to maintain the same correspondence with them." The committee of the Society had been enlarged in number since Mr. Carey's departure, and, as usual, had become more contracted in its feelings. It now included men of smaller minds than those who determined to begin a mission to the heathen on 13*l.* 2*s.* 6*d.*, and who had so nobly responded to Mr. Carey's offer to go out to any part of the world as a missionary. The whole sum which the committee remitted to India between May, 1793, and May, 1796, for the support of two missionaries and their wives and four children, was only 200*l.* Yet these men, who had left their generous-hearted missionary so destitute in a foreign land, on hearing that he had accepted the charge of an indigo factory, upbraided him with "allowing the spirit of the missionary to be swallowed up in the pursuits of the merchant," and passed the following resolution, "That, though, on the whole, we cannot disapprove of the conduct of our brethren in their late engagement, yet, considering the frailty of human nature in the best of men, a letter of serious and affectionate caution be addressed to them." To these ungenerous suspicions and this redundant admonition, Mr. Carey replied in a tone of subdued indignation, "I can only say, that after my family's obtaining a bare allowance, my whole income—and some months, much more—goes for the purposes of the Gospel, in supporting persons to assist in the translation of the Bible, in writing out copies of it, and in teaching school. I am indeed poor, and shall always be so until the Bible is published in Bengalee and Hindoostanee, and the people want no further instruction."

For four years he devoted himself to this uncongenial task, preaching in his leisure hours, and throughout all his other labours carrying on his translation of the New Testament into Bengalee. We have always regarded this as the most wonderful period of his life, the time which most conclusively proved that Mr. Carey had been appointed to a work. The romance of his enterprise was gone. Those high and vague thoughts which so often impel strong imaginations to schemes noble but beyond their strength, had been supplanted by a painful work-day reality. He had arrived in India, and had, we doubt not, gained the idea which never afterwards quitted him, that of the sons of men none needed conversion so much as the Bengalees. He knew that thenceforth his lot lay among a race bound in the withes of a subtle philosophy, without hearts to feel or conscien-

res to fear, as bereft of aspirations for the future as of present virtue. He was harassed by petty trials, by a wife to whose irritable temper, verging always on insanity, every privation was a grievance and every grievance her husband's fault. He was engaged in labour and labour interrupted his true toil, in the labour of supervision, and Carey from the beginning to the end of his career could not supervise. He never could manage anybody, wife, or workmen, or children, or pundits, or anything except perhaps plants. In the midst of these temptations for five long years he never swerved from his purpose, never omitted preaching, never stopped the work of translation, never failed to acquire aught that might tend towards his one true object. His labour at Mudnabatty gave him at least one advantage, a thorough mastery of the lower notes of the beautiful language which was to be his instrument of evangelization. He acquired it to perfection, as far as perfection was possible in a language without a literature or an Academy to control its aberrations, and laid as an indigo planter's assistant the foundation of the knowledge which was shortly to make him facile princeps among Orientalists. At last the path was opened to more direct devotion of his life to his work. Two other Missionaries arrived in Bengal, and driven by Government from the dominions of the East India Company sought those of the King of Denmark. They summoned Carey. He yielded, and on the 10th January 1800 William Carey, the son of the parish clerk, schoolmaster, shoemaker, "tub preacher," and indigo planter, settled in Serampore for life, and commenced the career which has made his name a household word among all who fear God and speak the Saxon tongue. At this time he was a worn oldish looking man of short but broad and tough frame, with a face in which intellect and benevolence were the prominent characteristics, but which was haunted by an impress stamped by early rustication. His virtues our brief sketch has imperfectly displayed. His defects, such as they were, arose chiefly from the circumstances of his life. They were briefly a quaint kind of obstinacy or rather dourness, a "bovine way" such as one sees only among the peasantry of England, and, as springing from that same peasant trait in his character, a want of delicacy and reserve in some of the relations of life.

William Ward, the second of the colleagues, was born at Derby in 1769, a carpenter. He was apprenticed to a printer, and like most printers had a fancy for composition. He edited several papers of somewhat extreme views—very moderate we should think them now-a-days—and had apparently some small success in life. His heart however burned within him, and in 1797 he gave himself to the Mission work, agreed to proceed to Bengal, and arrived 13th October 1799 at Serampore. Less is

known of him than of his colleagues, for by habit of mind he was careless of publicity or approval. The duty of the day was with him the first object, and do it he would whatever might interrupt. He appears to have been a fearless, somewhat democratic man, fond of work, slightly opinionated, with a capacity for organization, and with—what belongs to that special temperament—a marvellous control over Asiatics. The Hindoos trusted him as they now trust no Englishman, and his great book on the Hindoos is still the one work which truly describes the race among whom it was his lot to strive. An intense horror of all forms of sexual vice has led to an exaggerated picture of one side of native society, but, that mistake apart, his book remains a monument of patient thought, observation, and enquiry. He bore on his shoulders, till Mr. John Marshman appeared on the scene, the burden of most business details, and old natives still speak of his wonderful capacity to that end. His fault, we suspect, was a mind a little too opinionated, but it was nearly imperceptible in the immense good resulting from his toil.

Joshua Marshman the third, or as he is usually classed second of the two, was born at Westbury Leigh in 1768, the son of a weaver and Baptist Minister. From a very early age he devoted himself to reading, more especially theology, and in 1796 obtained the situation of Schoolmaster to the Church at Broadmead. Here, besides keeping himself abreast of his fellow pupils, he acquired a wide extent of classical learning, Hebrew and Syriac, and became so popular a teacher that independence seemed to be within his grasp. The impulse however was on him too, and through the influence of Dr. Ryland, then President of Broadmead he was accepted, with some unexplained reluctance, as a candidate for Mission work. He arrived in India in October 1799 and as he came out in a Danish ship went to a Danish settlement, Serampore, where he was ultimately compelled by the Company's persecution to remain. Mr. Marshman, doubtless from a feeling that he stood too near his subject, has avoided any distinct or connected sketch of his father's character. It was more difficult to understand than that of his colleagues, for it was more traduced. Huge volumes have been written solely to prove that Dr. Marshman was a subtle schemer. He was accused for years of every kind of evil purpose, and the accusations, repeated with the unweariness of personal rancour, ultimately created an impression, not infrequent even among his friends, that he was radically insincere. We believe it to have been false. We have read upwards of three thousand printed pages of correspondence, chiefly his own, and read them with an impression that this charge must be in some degree

correct, and we pronounce it totally without foundation. That something or other, either in his character, or as we believe in his manner, had the effect of profoundly irritating those who came in personal contact with him, is clear from the facts of his life. That it was something of light importance, is also evident from the devoted affection born towards him by men like Carey and Ward. That he entertained the mistaken theory that men are most easily controlled by "management" and "conciliation" is also clear, but we cannot perceive that he ever gave way to it on important points. He was indeed on questions of principle or conviction, annoyingly unbending. But he would not fight for trifles, and his habitual moderation of tone irritated his adversaries by leading them always to expect the victory they never obtained. For the rest we should judge him a man absolutely earnest in his great work, patient of labour, though not loving it for itself, and with a grasp of mind far beyond his colleagues. He was always put forward as Foreign Secretary of the Mission. It is to him the cause owes that moderation of tone which enabled Wilberforce to quote the Serampore Trio, as living proofs that Missionaries were not of necessity fanatics or seditious. It is to him they owe also the social position they occupy in India, so widely different from that held by Missionaries in New Zealand or the West Indies. It is from him alone we gain maxims invaluable for the general administration of Mission enterprises, and finally it is in chief measure to him that the political success of philanthropy in India, the abolition of Suttee, and infanticide, the new tone given to all official action and all European social life, is really due.

The three men, such as we have tried to describe them, were at last assembled at Serampore. The funds in their possession must have been limited to a degree, but men who have no wants are nearly exempt from the annoyances of poverty. They took a small house, opened friendly communications with the Governor, Colonel Bie, and commenced a plan of life from which they never afterwards departed. They resolved to live in common, to throw all gains into a common stock reserving only some trifle—a pound a month we believe—for pocket-money, and to remain as far as possible self-sustained. They set up a Press, and their positions by insensible degrees shaped themselves into form. Dr. Carey devoted himself to the translation of the Scriptures into Bengalee. Mr. Marshman preached in English and Bengalee, opened a school, and assumed the Foreign Secretariat of the Mission. Mrs. Marshman also opened a girls' school. Mr. Ward preached, chiefly in Bengalee, and superintended what speedily became the vast business of the Press. We shall have

to describe the gradual expansion of their labours subsequently, but meanwhile proceed to the relation of the difficulty which, for thirteen years, alarmed their minds and restricted their efforts.

From the moment they became a sovereign power, the Court of Directors had been remarkable for their hostility to Christianity. All other conquering powers had held the establishment of their own faith in supremacy, as one recognized object of their policy. The Romans imposed the worship of Rome upon all races, save the Jew. The Spaniards went forward avowedly to convert, and despite the abuse we are accustomed to lavish on Spanish sovereigns, it was Royal authority which supported the humane efforts of Las Casas. The Puritans, though too weak to attempt to convert the Red Indians, would have perished sooner than even appear to sympathize in their spiritual ideas. Even the Court of Directors, as a trading body, seem to have believed it part of their duty to instruct the Gentooes in the broad truths of Christianity; and paid Chaplains for that avowed end. The change seems to have come not with their new powers of sovereignty, but with the ingress of Anglo-Indians into the Court. As time advanced and the English people began to enquire why they, the masters of India, should be excluded from their own dominions, the Court considered it necessary to produce some reason of state, some argument of general policy, for the exclusion of Christianity from a Pagan land. They therefore talked loudly of the political danger of conversion, attributing the danger by a curious perversion of facts not to the Mussulmans, but to the Hindoos, who as polytheists were far less susceptible and sensitive for their creed. This political danger however, though subsequently a faith with the Court, was at first a mere invention. The unreality of their fear is evident from the fact that they never in any one case prohibited the teaching of native converts. The native convert as an apostate was of course hateful to his countrymen. Knowing them he was far more bitter on their Gods. Master of the language, with its rich wealth of satire, pun, and double entendre, he was able to drive Bramhans half frantic by sarcasms a European would not even understand. Moreover, his work was to a great extent carried on in secret. A European among an Asiatic community is generally as visible as a bull among a flock of sheep. Dr. Carey's movements, journals, speeches, and pamphlets were matters of which officials might at any time be cognizant. But Ramboosoo was almost an invisible power, might preach treason or talk heresy without any civilized being ever hearing a rumour of the facts. Yet the Court of Directors never shut the native's mouth; never imprisoned native converts, never dreamed of the sentence of transportation they inflicted so repeatedly on European teach-

ers of the truth. The fear of native hostility was, in truth, a figment invented to conceal prejudices on which it was difficult or disgraceful to reason.

These prejudices seem to have arisen thus. The Anglo-Indians who ultimately filled the Court were essentially a proud bad race, greedy for gold, eager for license. They shared to a very wide extent the intense hatred of "methodism" which then pervaded the upper grades of the middle class of Englishmen. The feeling was intensified by that scorn of priestly meddling which is an attribute of all aristocracies, and which to this hour is strongly manifested in Indian society. It does not now show itself in immoralities, but the boldest chaplains fail utterly in securing social weight. Out of Calcutta there is no Minister who would venture even to censure his flock for lax attendance, or want of respect for the priestly office. His silent, respectful, but complete defeat would teach him at once that an Indian station was not a parochial cure. Then again a few men, conscious of possessing special knowledge, are always apt to exaggerate the importance of that knowledge. A good mathematician always believes that mathematics are the end of thought. The Hindoo philosophy therefore, according to these gentlemen, was the wisest in existence. The Hindoo mythology was pure as Christianity, and possessed an element of sublimity Christianity lacked. The Hindoo system of morals was one from which Europeans might learn much. All these prejudices, which opposed every effort to extend Christianity, were intensified as regarded the Missionary by another. The Missionary was *the* Interloper par excellence, and the hate of a camel for a horse, of a snake for a mungoose, was feeble when compared with the hate of an Anglo-Indian for the interloper. Partly from his training, partly from the first circumstances of the conquest, the Anglo-Indian official regarded India as his property, his peculium. An interloper was therefore in his eyes little better than a thief, a man who undersold him, interrupted his profits, and impaired his exclusive authority over the population. With that instinct which comes of self-defence he saw that the Missionary was the most dangerous of interlopers. If he succeeded and India became Christian, the profitable monopoly was at once destroyed. If he failed, the religious party would never rest till they had broken down the monopoly to give him free course and liberty. The class therefore hated the Missionary, and hoped perpetually for a blunder which should give them an opportunity of deporting them from the country. It was the knowledge of this feeling, of this predetermined conclusion, which tinged the Missionary movements so deeply with alarm. They were not often directly attacked.

They were usually popular with the Governor General of the hour. But they lived none the less from day to day under the incessant fear that, from some casual expression, some carelessness in their converts, their labours would be brought to an end, their property confiscated, and their persons deported as seditious offenders. They were ~~said~~ in the first place by their situation. The Danish Government, unaffected by the prejudices of the Company, was friendly to Mission effort. The local authorities were friendly to establishments which brought occupation and comfort to hundreds of their people. They resisted gallantly every suggestion of extradition, and on one occasion at least took the responsibility of a quarrel which might have involved war. Throughout the struggle the conduct of the Serampore Missionaries was beyond praise: They never defied the Government. They never ~~fought~~ fought minor questions. They never engaged in political discussions. They simply and calmly refused to intermit their Missionary labour on any secular consideration whatever.

Take for example the quarrel with Lord Minto, perhaps the only one in which the Missionaries were in serious and immediate danger. Lord Minto arrived in India in 1807, when the Serampore Mission had already become a great centre of civilization and light. He was, says Mr. Marshman a man of second rate abilities, a criticism to which we feel inclined to demur. At all events for a man of second rate abilities he designed, provided for, and carried out one of the widest projects which ever attracted the attention of an English statesman, a project which, had the diplomatists of 1815 had the brain to grasp its magnitude, would long ere this have given us the undisputed sovereignty of the East. In two short years he swept the French, the Dutch, and the Spaniards out of Asia, conquered Bourbon, the Mauritius, Java, Singapore, Borneo, and the Philippines, and left on all Southern seas, on every island and possession belonging to any European power, none but the British flag. That Lord Castlereagh, who did not know where Java was, and had never heard of the Philippines, flung away his conquests, was no fault of his. To us he seems to have been a man of a mind slightly over-expanded for its strength, and apt therefore to regard all questions but the very greatest with dangerous indifference. The temperament is a bad one for a statesman required only to administer, for he is sure to leave substantial power in the hands of his *entourage*, that is, in India, of men who think India the one imperial interest of Great Britain, exaggerate the smallest events, and in their general policy know nothing of moderation. It was in the hands of such men that Lord Minto left the Missionary question. They had been driven frantic by the

news of the Vellore Mutiny. Not that they believed that mutiny caused by Missionary effort. They knew India too well to believe that any act or omission as to Bengalees could affect Madras. But it gave them a handle, and they raved of the danger of the Empire. A pamphlet, it appeared, had been issued from Serampore reflecting on Mahomedanism and Mahommed, in terms made gratuitously severe by the Moonshee employed to revise the translation. The Government demanded through the Governor of Serampore the suppression of the pamphlet. The Missionaries, instead of standing on the general question of right to publish, examined the translation, detected the interpolation, and at once surrendered the edition. Government then advanced a step. They resolved to prohibit preaching in Calcutta, and to break up the Press at Serampore. The Governor at once declared his determination not to permit any dictation of the kind. The Missionaries at first therefore were inclined to remain silent, but Mr. Ward's advice prevailed, and we give the discussion in extenso, as an instance of the real spirit which prevailed in the Mission :—

"Dr. Carey and Mr. Marshman agreed to leave the matter in his hands, and to refrain from any further communication with Government. But Mr. Ward did not consider this determination wise or prudent, and immediately sent his brethren the following minute of his views :—"I have a great deal of hesitation in my mind respecting our remaining in sullen silence after the English Government have addressed us through Brother Carey and the Governor. As it respects ourselves, even if we are not compelled to go to Calcutta with our press, the having them as our avowed and exasperated enemies is no small calamity. They may deprive us of Brother Carey's salary, with which we can hardly get on now, and without which we must put an end to the translations, and go to jail in debt. They can shut up the new meeting at Calcutta ; they can stop the circulation of our Grammars, Dictionaries, and everything issued from this press in their dominions ; they can prohibit our entering their territories. As it respects Col. Krefting, we ought to deprecate the idea of embroiling him with the English Government, if we can possibly avoid it. I think, therefore, as we can now officially through him address the British Government, we should entreat their clemency, and endeavour to soften them. Tender words, with the consciences of men on our side, go a long way. We can tell them that to take the press to Calcutta would involve us in a heavy and unbearable expense, and break up our family, and that we will give them every security they would wish, by subjecting our press to the absolute control and inspection of the Government here ; nay, that we are willing to do everything they wish us, except that of renouncing our work and character as Ministers of the Saviour of the world. To this Col. Krefting can add what he likes. If they listen to this we are secured, with all the advantages of their sufferance. If they are obstinate, we are still at Serampore. I entreat you, dear brethren, to weigh these things, and give them all the attention that our awful circumstances require.

Mr. Ward's proposal met with the approbation of his colleagues, and it was resolved to present a supplicatory memorial to the Governor-General. At the same time, Mr. Ward renewed, with much importunity, the advice he had previously given them to seek a personal interview with Lord Minto,

whom, as yet, they had not been introduced to. He urged that the Moravian missionaries never omitted to cultivate a good understanding with the Governors, wherever their Missions were planted, by making themselves personally known to them, and explaining their plans of operation. Thus, said he, prejudices are disarmed, and the designs of enemies baffled. On the present occasion, a personal communication with Lord Minto would dispose him to receive the memorial more favourably."

It will not be forgotten that Mr. Marshman, one of the three who adopted this course, was condemned in after life as a man of an habitually contentious spirit. The personal interview ended as, on our interpretation of Lord Minto's character, it might be supposed it would end. His Lordship had almost forgotten the menaces the Anglo-Indians had put into his mouth, and coloured when referred to them, and asked for a memorial. The memorial, a very able one, was presented, the order was revoked, and Lord Minto informed the Missionaries "that nothing more was necessary than a mere examination of the subject, when everything appeared in a clear and favourable light." In other words the moment the Governor General personally attended to the matter, the Anglo-Indians were thrust aside, and the question decided on principle instead of according to a narrow Hindooized prejudice. The result in every case was the same, and although Lord Minto soon after was induced to expel three Missionaries, the elder men were still permitted to remain.

It is curious to mark the steps which this great controversy has taken in advance. In its original form it was simply a dispute whether Missionaries should be allowed in India at all. Then it became a question whether, though tolerated, they should not be liable to deportation for "excessive or injudicious zeal." It is on these points that the controversies of 1808 and 1813 raged. The forgotten pamphlets of which Mr. Marshman has given so amusing a sketch, were devoted entirely to these points, and what is now regarded by the real question, the relation of Government to Paganism, was scarcely raised. Mr. Marshman scarcely gives even his own opinion. From scattered hints we can gather that he would have Government simply inactive, tolerating all creeds alike, but supporting none, but no theory is expressed in these volumes. We will venture briefly to point out what we consider the difficulty of the position, and the true attitude to be assumed by a Christian Government when ruling Pagan millions.

The early theory of the Christian world undoubtedly was, that the ruler was bound to extend Christianity to the uttermost by any and every available means. That theory is still maintained by the Roman Catholic Church, and it has at least the merit of simplicity and clearness. It is not invariably, either, a theory at variance with practical facts. It was under such an impulse that

St. Olaf converted Scandinavia by the sword, that Charlemagne christianized the Saxons, that the Teutonic Knights changed the faith of the Wends, that the Gachupins or old Spaniards of Mexico, in the midst of horrible cruelties, still brought the Indians over to a form of Christianity. Later in history the Puritans of England, while recognizing the fact that genuine Christianity cannot be propagated by force, still considered idolatry a crime. The public performance of many Catholic rites was and still is prohibited in England, and the "devil worship" of Massachusetts and one or two tribes in the West Indies was sternly repressed. Later still the modern theory of toleration sprung up and prevailed, till it had destroyed all other theories of the relation between religious thought and worldly power. According to this theory all questions of religion rest between man and his God. The State, as such, has nothing to do with beliefs, or with the forms in which those beliefs may reveal themselves to society. This is, we have said, the theory. In practice it is modified by the rider that such outward expression of belief must not be obnoxious to the laws of humanity or the general good order of mankind. America with all its freedom will not tolerate Mormons. England with all its freedom suppresses infanticide and suttee, the last a religious act injuring only the individual who submits to it, and therefore within Mr. Mill's notion of permissible though objectionable deeds. Whether this theory thus modified is in accordance with Christianity, whether Christ would have tolerated the worship of Seev, whether, setting all beliefs aside, open idolatry is not a crime which human beings are required by God to put down, must remain uncertain. This much at least is sure that all practical statesmanship must bend to this theory, that for the hour no plan is practicable which cannot be defended on this ground. Within these narrow limits, therefore, what is the true position of a Christian Government reigning over a Pagan people?

•There are, as it appears to us, but ~~two~~ courses open. The first and for the moment the popular one is to ignore religious belief as an element in society altogether, to govern wholly irrespective of creeds, to grant equal privileges to the Christian and the Pagan, to refuse connection with all endowments alike, to prohibit all religious teaching in official colleges, to reject all religious books from official libraries, to listen in short to nothing which endangers an absolute policy of neutrality. This policy as a political scheme has only one defect. It can never be carried out. Not only has the Government itself a creed, which on one or two points—as for example slavery—it dare not disobey, but its administrators are men always of some belief, often of a strong one, which revolts from absolute indifference. Even.

supposing all administrators and Government permeated with the same theory the subjects are not. *They* do not think their faith matter of indifference, but on the contrary of most urgent import. At every step the neutral Government is compelled by their resistance to abandon neutrality. It publishes a law prohibiting the public exposure of obscene pictures. Hindooism compels it to make an exemption in favour of obscene pictures on temples. It publishes another to enforce the taking of oaths. Hindooism compels it to exempt Hindoos. It endeavours to enforce military obedience to orders. Hindooism compels it to except all orders contrary to caste. It publishes a law of succession. Hindooism and Mahomedanism both compel provisos so large as to swamp the Act. In truth neutrality is as impossible in public affairs as in driving. You must take one road or the other ; and not the hedge between.

The second course is the one which we venture to believe combines the requisites demanded, enables us to honour God, to avoid a crusade, and to keep within that that narrow limit of toleration on which English opinion for the present insists. This is to declare that Government is a Christian Government, Christian in objects and ways, but for grave reasons tolerating Hindooism like any other social evil, like for example concubinage. No European Government is neutral as regards concubinage. It holds it, in its Courts, and in the theory of its laws, abominable, but nevertheless for grave reasons leaves it alone. So we would leave Hindooism alone as a thing abhorred, but which if repressed by force would only give place to evils as offensive and more dangerous. The direct consequence of such a theory would be an utter disconnection from Hindoo trusts, a refusal to acknowledge Hindoo holidays, and the exclusion of purely Hindoo questions from European Courts of Justice. The creed would then live or die according to its own inherent vitality. That this is the solution at which we shall ultimately arrive, we have no doubt whatever. The process however will not be complete, till steam and electricity have brought England and India into such close contact that Englishmen at last can see Hindooism clearly through the haze, recognize it in its true character as a mass of festering corruption, and with one voice demand what the Sadducees of that day will consider most unphilosophical requisitions.

The Serampore Trio determined, half consciously perhaps, to make their Mission self-supporting. Independent labour and more especially literary labour was at that time almost without a precedent in India. The Press was still under restrictions. Manufactures except of Indigo were almost unknown. There were no private schools worthy of the name. The road to wealth seemed closed except to a few merchants and

English lawyers. Still the Missionaries did not despair. Each was master of at least one trade. Each had looked poverty fairly in the face, and knew that so defied it became a bugbear. They had moreover, though scarcely aware of them, almost incalculable advantages. They were all thrifty men, by which we mean men not simply economical, but well aware of the relation of means to end, of expenditure to return. They were all in a very singular degree healthy men. They were all men of labour, capable of hard, continuous, persevering work. Above all, by their intimate union, and the terms on which they decided to live, they gained the one Indian advantage, cheap efficient European labour. The profits of the Press, for example, would not have purchased a printer like Mr. Ward. No pay would have secured the ability, the unswerving care and attention, Mr. and Mrs. Marshman gave to their schools. They set up a press originally intended to print the Bengalee translation of the Bible. Translations continued always its main work, but the one increased to thirty. Dr. Marshman opened a school, and Mrs. Marshman another, and both schools filled rapidly. All who were unwilling to send their children to Europe, all who were unable, sent them to the good Missionaries of Serampore. The number was increased by the peculiar immorality of Anglo-Indian Society. India was swarming with illegitimate children whom their fathers could neither send home nor look after. It was a relief to their consciences that their children should receive the religious education they had themselves lacked, and for years they were sent in numbers to Serampore. The school prospered exceedingly, the receipts amounting at times to Rs. 4,000 a month. Then Dr. Carey was appointed Sanscrit Professor to Marquis Wellesley's new College* with 1,500 a month. The Press also by degrees paid, we can scarcely at this distance of time understand how. For the mass of translations they received considerable donations from England, but for the rest of their enormous undertakings they were assisted to a very large extent by the fruits of the labour of their own hands. In five years they expended the sum of £13,000, of which only £5,740 had been subscribed from England. The rest was their own gift to the work of the Mission, a large sum to have been surrendered in five years by those who commenced life as working men. Not to protract this part of their history, we may state that the three men in their lives gave to the Mission a sum exceeding £60,000, all raised by the labour of their own hands, and the patient self-

* It is a curious fact that this appointment could not now be made. The Home Government, in a sudden access of cowardice, has prohibited all Indian Governments from employing persons in orders.

denial of years. Religious history has scarcely such another instance to record, for these men gave from no impulse, received no reward in public applause, or smiling faces around them. They reduced themselves to bare maintenance, the highest personal allowance ever conceded being forty rupees a month. This liberality they continued through life, giving as largely to the Mission when traduced in England, as when their efforts had made them the almost worshipped friends of the Christian world. The only difference the incessant calumnies of later years made in their conduct, was a resolution to devote one-tenth of their earnings to a fund for the support of their wives and families. They died poor men, Dr. Marshman the richest among them leaving but a bare provision for his widow.

While engaged in these labours they carried out undertakings even larger, but which brought no addition to the Mission Funds. The work of Carey's life—professorships, &c., being trifles—was the translation of the Scriptures. He had conceived, apparently while still at Mudnabatty, a half educated indigo planter, the design of translating the scriptures into every language spoken throughout India. He succeeded. Before he died he had published the Bible in Sanscrit, Persian, Hindostanee, Bengalee, Marhatta, Ooriya, Telingu, Pooshtoo, Punjabee, Goozerattee, Hindee, and upwards twenty other languages and dialects. Some of these translations undoubtedly were imperfect. One or two were pronounced bad. But five or six, the Sanscrit, Bengalee, Ooriya and Marhatta, were admirable, the Bengalee being to this day the only one not deformed by Sanscritized expressions. Not one we believe was in any degree unintelligible, the Pundits alone, imported as they were from the districts addressed, preventing that special form of error. The Pooshtoo for example said to be among the worst, has since been read out to Afghans in the valley of Peshawur, who understood every word. To have accomplished one translation successfully was a mighty achievement but Dr. Carey did much more. He simplified all future labour. He pointed out the path, and those who enter into his labours may, now that the trees are blazed, congratulate themselves on the ease with which they find the way, and blame the pioneer because he did not, single handed, cut a level road. In almost all these languages he published dictionaries and grammars, the dictionary of Bengalee being still the quarry from which all present book-makers in that line dig their materials, and the grammar the only one which really assists the student. But for this bitter controversy allusion to Dr. Carey's powers as a linguist always excites, we should be inclined to claim for this grammar still higher credit. It is the one grammar we have ever seen made for men ignorant of the language to be studied, divested of

all rigmarole about the structure of inflexions, and reduced to the half-dozen arbitrary formulas by which, and not by philosophical discussion, children learn their mother tongue. He translated the greater portion of the incomplete version of the Ramayun, though unfortunately from the inaccurate text current in Bengal. He founded the Agricultural Society, he established a botanic garden still rich in the plants of South America; he was long the most active Member of the Asiatic Society, and the sketch of his daily work may be read by some who strive to follow in his foot-steps with sorrowing envy.

Mr. Ward's labours, though not so prominent as those of Dr. Carey, were in his own department as arduous and successful. His one great work exhausts knowledge on the subject of Hindoo customs, and he was for years the right hand of the mission. Dr. Marshman in addition to the daily labour of his school, of his incessant preaching and discussion, of the whole correspondence of the Serampore Mission, was manager of a series of smaller missions, and the Translator of the Chinese Bible, the works of Confucius, and the Clavis Sinica, an attempt at a Chinese Dictionary. All these works are probably open to the objection urged against Dr. Carey's, but the translation of the Bible is declared by Chinese scholars still to be a work of singular merit, a real assistance to subsequent translators.

We have repeated the story of the work these men accomplished, not only for itself. Men have rarely worked harder for a fortune. Still, mere work is often accomplished by mere workmen, and is only worthy of record as a contribution to the general outturn of that generation's effort. But the Serampore Mission carried out in great part—not entirely, for they had help from England—the idea of a self-supporting Mission. That idea has for the last thirty years been so completely laid aside, buried as it were under the reports of great Missions and endowed societies, that it may be considered forgotten. It may be questioned if the world has gained anything by its want of memory. Undoubtedly if we resolve to convert the world by an Agency such as we employ to keep up the offices of religion in Christian Churches, an Agency which shall be to some extent a profession, and therefore hampered by the inequalities and imperfections of individual character, large Societies form the best medium of effort. The self-supporting Mission is apt to be erratic, apt also perhaps to catch too much of the commercial spirit. The absence of control and responsibility is with the mass even of good men always a temptation. Still there are some minds so finely attuned that immersion in the business of the world does but strengthen their devotion to spiritual things. There

are some minds so gifted that they acquire by the incessant intercourse with men and facts, by facing personal obstacles and overcoming physical difficulties, new weapons for the spiritual warfare. With such men the plan of self-sustaining missions offers many recommendations. That mode of support offers a scope for individual energy, or even individual eccentricity, no Society can afford. It enables them to try new experiments, without the weary necessity of convincing old men, on paper that the experiments are likely to succeed. Above all it invests them with personal interest in the work, relieves them from the danger of that torpor into which great Societies, whether for propagating the Gospel or making candles, have a universal tendency to fall. As a systematic scheme for the conversion of the heathen, intended to concentrate every little fragment of energy in a nation or a denomination, the Society is the better instrument. But we should be glad to see in a few of our young men in England the self-reliant, almost arrogant, energy, and humble reliance on the promises of the Almighty, which would tempt them into the difficult but noble path of self-supporting Missionaries.

The self-supporting Mission brings us to another point in the history of Serampore. As early as 1806 Dr. Carey had determined to extend the sphere of operations by creating subordinate Mission stations. After many obstacles, arising chiefly from the opposition of Government, which we need not recount, the plan succeeded. As means became more plentiful it was enlarged until the Serampore Missionaries became the central directing authority of no less than sixteen Missions, in all parts of Eastern and Northern India.

To each of these stations they sent at least one Missionary. With each they maintained a close relationship. From each they received, and published periodical reports. The attempt was a noble one, but we are fain to say that this is the point on which we feel least satisfied both with their efforts and Mr. Marshman's book. The latter contains too little on the subject. Serampore is too much all in all. That it was a centre of Missions as well as a Mission is a fact which, though re-stated as often as a bee left the hive or returned for shelter, is not so prominently brought forward as it deserved. What did these Missionaries do? How did the three guide them? How far did they control them? What was the organization of the machinery? One would have liked more information on all those points, but it is not in any liberal degree forthcoming.

One reason of this may be that Mr. Marshman unconsciously feels what we consciously feel, that these Missions were the least successful section of the Serampore work. Not much was accom-

plished in any of them. This may have partly arisen from the utter newness of the soil they had to turn up. Their energy was exhausted as it were in cutting a mental jungle, while we are crying for corn from the clearings. There is truth in that objection, but we fear there is also truth in this. One of the faculties not granted to Dr. Carey, who chiefly selected agents, was a clear perception of character. He had too much belief in a passive sort of goodness as the grand requisite for Missionary work. All three men had moreover an idea that Missionaries trained in the country were the best, a theory perfectly true of natives, but scarcely true of the somewhat miscellaneous list of Greeks, Armenians, and country-borns found on the Society's list. An indisposition also to strong, dominant, self-willed characters is found perhaps in all strong men. They like Agents who will carry out their views, and for all but Missionary work they are perhaps in the right. The Missionaries of Serampore were not altogether free from that failing, and their selections rarely turned out equal to their expectations. Mr. Marshman has recorded their disappointments in some cases in very clear English, but we must go a step further and say that with the exception of Mr. Thompson of Delhi, and Mr. Robinson, who both in Java among the soldiers and in Dacca among natives effected much, none of their Agents left a mark in Missionary history. They were very good men, usually men of zeal, but there was a deficiency of power, of real native vigour in all, which the author would probably attribute to individual idiosyncrasy, but which sprung at least as much from circumstances of class and career. It has been said and truly that the divine gift of inspiration, the seal of prophecy or apostleship, never appears in Scripture to have been bestowed save on men of a very high order of intellect. David and Solomon, Isaiah and Ezekiel, St. Paul and Peter the Apostle, were possessed, besides their gift from on high, of wisdom, eloquence, pathos, the power of logic, and the faculty of heart-reading, in a degree wholly exceptional among mankind. Similarly we question if it is given to feeble men to become very successful Missionaries. The grace of God cannot be limited, but it must be remembered, that it falls on the taught rather than the teacher, that as a matter of historic fact the visible instruments of the Almighty have been of sharp edge. The Serampore Trio had, we fear, too much the idea of some modern societies, that as salvation cometh of faith, the power of teaching well in foreign tongues may come of faith too. It may, but the human being who calculates on a miracle is often punished by failure for his presumption.

We feel the absence of detail on this subject as the more unfortunate, because the organization of Missionary bodies, the pro-

per connection of Missionaries with Societies, boards, committees, and Foreign Secretaries, is just now a vital question in the work. Disputes about it are always rising. A controversy springing of it embittered the lives of the Serampore Missionaries for years. A downright quarrel on the subject last year shattered the American Mission to pieces, and in the midst of shoals of articles, pamphlets, papers, speeches, accusations, recriminations, and resolutions, no principle seems yet accepted. The practice of the evangelical churches varies with the individual talent of their rulers. The Church of Rome is of course consistent and despotic. She governs her Missionaries from Rome, through a Board practically consisting, we believe, of three men. The English Propagation Society maintains a pretty complete control over its agents. The Church Missionary Society tries to do the same, and owing to the dominant will and energy of one man, has for a time succeeded. The remaining societies leave the question undecided. In theory every Missionary being responsible, if at all, to the Churches who pay him, and not to the Society, Board, or Committee who send him, is independent. He has a right to choose his sphere of labour, the character of his labour, and to a large extent the means he shall adopt for making that labour successful. The Boards admit the principle, but in some important matters set it aside. They decide all money questions. No Missionary can go home without their leave. No Missionary can act in absolute independence as to choice of station. In one or two points, where they are secure of support from the churches, they go even farther. No Missionary for example could intermit making reports for years with safety. On one occasion an entire body was informed in unmistakable English that if they persisted in taking grants-in-aid they would be dismissed. Of course some phrase much civilier in form was employed, but that was its unmistakable meaning. The American Board actually carried out a similar sentence, and that, as was subsequently perceived, against the will of a large majority of their supporters. Absolute independence therefore is claimed for one side, admitted on the other, and yet as a fact does not exist. Englishmen are accustomed to that state of things, indeed have invented a special phrase, "constitutional compromises" in order to describe it. But constitutional compromises ought to work well, and this special compromise does not invariably do so. There is a want sometimes of organization, sometimes of independence. A promising station is sometimes broken up because its occupant is dead, and every other Missionary thinks his special task more important. A promising experiment is sometimes frustrated because the Committee cannot be convinced that the brain which devised it is wiser than theirs.

As a matter of mere reasoning it is impossible not to prefer the Roman Catholic strict organization. When obedience does not weaken zeal, independence is merely waste of power. But as a matter of fact that system never succeeds with Englishmen. We are insular, and must get along independently or not at all. The soldier merely ordered becomes a machine, the official over-centralized loses all originality. National character cannot be altered for the especial benefit of Missions, and the only course open is to secure as much union as the national character will allow. We believe this would be most easily done in Missionary affairs on the plan long since adopted in matters secular. Let Missionaries be controlled, and pretty absolutely, by themselves. In other words, vest whatever of executive authority is needed in a Committee composed of the whole body of Missionaries in the district, with permission to vote, if necessary from distance, season or other cause, by letter on the facts, as officers do in their funds affairs. Every man then having his fair voice and argument in the matter might submit to the general advice without loss of individuality or independence.

The absence of strong character in the Agents of the Mission appears perhaps with undue clearness from the contrast to that of the three men themselves. None exhibited more thoroughly the true character for Mission work. None felt more acutely the necessity for attention to such work. The moment, they were accustomed to say, Missionary labour becomes a profession it will cease to be successful. The danger is one which seems to have struck all Missionary bodies, and schemes for evading it have been repeatedly proposed. One and the most popular is to subject all Missionaries to such an amount of personal discomfort as to ensure a certainty that only devoted men will accept the office. Another is to send them forth to live like natives. The last scheme has much to recommend it, but the one unfailing unanswerable objection is that it kills the Missionaries employed. It was tried by the Jesuits pretty thoroughly, and under favourable circumstances, and the result was a mortality of forty per cent. per annum, a result which would crush the most powerful Mission that ever existed. The other plan of excessive narrowness of means has also been tried, but we think without any adequate return for the misery it inflicts. With unmarried Missionaries it might succeed, but to a married man extreme discomfort at home, or excessive fear for the future of wife and children, is a source, not of new devotion, but of harassing anxiety. That no Missionary should be wealthy, that he should receive only a maintenance out of which accumulation is impossible, may be as wise as it is unavoidable. But extreme penuriousness does not as a matter of fact elicit a deeper

spirit of devotion, and it may be questioned whether most Missionary bodies do not now carry economy too far. The Serampore Missions, filled as they were chiefly from men bred and born in the country, could of course be carried on with an economy impossible with purely European agency. But the gain in the number of Agents is lost in their deficient energy, in that tendency to lassitude of thought and purpose which the climate produces in all but a few men of special mental constitution. Mr. Marshman enumerates as one of the benefits attending the selection of Missionaries from within the country, the ease with which they acquire the native tongues. It seems certain, however, that two years of real effort, of eight hours' work a day, will enable any man not too old to acquire thoroughly any language spoken among men. Excuses are made for some languages, notably Chinese and Singhalese, on the ground of extreme complexity and variableness. The excuse as regards the written tongues may be true, but as to the colloquial a Singhalese has only two lips and a tongue, and what those organs can utter, men with similar organs may learn to utter too. The excuses made are invariably either the excuses of idleness, of indifference, or of positive incapacity for the acquisition of languages, an incapacity which like deafness, blindness or lameness, should be a disqualification for that special mode of serving God. The more we see of native life the more do we coincide with the almost exaggerated value the Serampore Missionaries place on this one faculty of ready speech. A new creed to be intelligible must be uttered to a people in their own tongue. Whatever the value of English, however great its efficacy as an instrument of cultivation, words uttered in it still address themselves so entirely to the intellectual faculty that the affections and the conscience must both remain comparatively passive. It is to the tongue of the people that the Missionary should devote his first attention, and that in no perfunctory manner. It is of little use to know the language as most of us know it, as a mode of expressing wants, wishes, and information. The Missionary should be a master of the vernacular style, able to touch all the notes of the mind, pathos, or humor or indignation, to express a thought by an inflexion, or crush an opponent by an accent. The man in fact who cannot pun in the vernacular, is devoid of one of the most powerful weapons employed in the contest.

On the last point of Missionary discipline, the relation between Missionaries and converts, the practice of the Serampore Missionaries was clear and decided. Believing always that it is by native apostles alone the native world will be converted, they still retained their influence over all their converts.

The notion of equality, now so widely diffused through the churches, was never so much as discussed. There was perfect sympathy for the convert, for his trials, his efforts, his worldly affairs. But the wise were still to rule the foolish, and it was expected that those who came to the Missionaries for advice should accept it when afforded. As a matter of fact the converts relied even too much on that advice, and for years a semi-episcopal constitution remained intact, preserved by ability and kindness on the one side and un murmuring confidence on the other. Amid the scores of schemes in which modern perplexities on this point result, this still seems to us the best and most practicable. There must be a native pastorate. That pastorate must for years be guided, stimulated, watched, and if necessary controlled, by the stronger faith and wiser brain which the European inherits from his twelve centuries of Christianity and progress. To place a series of pastors under any one Missionary, without the religious claim of Bishop, yet with practically episcopal authority, will always produce heart-burnings, and rebellion. But the pastors may well submit themselves to the general Committee of all Missionaries which we have before suggested, and in which they may be fairly represented. That was the Serampore system. The old men worked on, not conscious at all that they were laying the foundation of systems, but meeting each difficulty as it arose. Still in practice all difficulties were submitted to a Committee in which every class had a recognized or unrecognized but operative voice, and by which the final resolution was pronounced.

In 1812 another step was taken forward. An idea that the work of education was absolutely connected with that of evangelization, had long taken possession of the three old men. They conceived that for the permanent overthrow of Hindooism a new philosophy, a new system of knowledge was almost as essential as a new religion. There must be Christian pupils, and they resolved to train them. For this purpose they proposed to establish a grand College, with Professors of Sanscrit, Arabic and English literature and knowledge, a College in which Oriental learning should be made subservient to the spread of Christianity. They modified this project in a few years, but it may not be superfluous to discuss its merit. The world has lived fast since then, and has learned among other things to despise Oriental learning. Sanscrit scholars once so numerous in India may now be counted on the fingers. There is but one known Arabic scholar on this side of the continent. Persian is disused, or used only as a school-boy exercise. The search into antiquities is ceasing, the Asiatic Society is dying, and in a few years

if the present movement lasts, men will speak of Oriental learning as they speak of the Aristotelian philosophy, a subject only for the investigation of the curious. In 1812 Oriental learning was still valued. Men sympathised then with the community among whom they lived, and from the force of that sympathy comprehended the strength with which the old philosophy moulded their opinions, and therefore their manners. They felt that so long as the native retained Faith, so long as, beaten in argument, he still retained the idea of truths locked up in Sanscrit which if revealed would destroy his opponent, progress would be difficult or impossible. The Missionaries resolved to unlock the Treasury, to pull down the veil of the Hindoo Holy of Holies, and shew the people that it contained only dust and ashes. Their plan may have been mistaken. Indeed they modified it themselves. But it is in accordance with the true principles of education, and we have not advanced so far on our different road as to be entitled to condemn their different, and hitherto untried plan.

The College arose in a building so stately and expensive as to call forth the remarks of enemies on the ostentation which had dictated its plan. If it be ostentation to prefer beauty to ugliness, a cathedral to a barn, a splendid building to a cluster of ware-houses, the building, contrasted with those then used for schools, was ostentatious enough. Those who think that the cathedral is after all a natural expression of the reverence of man for that which is divine in him, who believe that beauty is in itself an educating force, who feel that the mere presence of grandeur elevates the growing intellect, will probably ascribe the careful design and large cost of the Serampore College to a higher motive. Coupled with the reason we have indicated ran another, the result of a wide experience. The Missionaries knew that the one quality difficult to secure in India is permanence. Air, water, population, society are all against it. Brick crumbles like ashes in this climate. Wood perishes as if the white ants really ate it at the pace people in England have been taught to believe. Even iron oxidises at a rate Stephenson or Brunel would refuse to credit. The soil is a mass of spongy rottenness. The air is loaded with vapours as destructive of all material as of human life. The natives believed to be so changeless, never repair. The European society changes every six years. Under such circumstances vast size, expensive materials, beauty of design, are absolutely essential to permanence. It is only by such qualities a building can tide over inevitable intervals of neglect. Only such can excite the keen interest necessary to secure a harassing and wearisome superintendence. An Institution housed anywhere

dies. Once enshrined in a building adequate to its aims, and it will live down generations of its friends.

The mere building was an evidence of wisdom. The object with which it was built, is more open to discussion. The College was intended directly or indirectly for the evangelization of the heathen. The Missionaries found it convenient to point out the undoubted fact that it would conduce to general civilization, but that was not their first object. Is then tuition a reasonable mode of advancing that great cause? With the Serampore Missionaries we believe that it is, but like them we should base that belief on ideas somewhat different to those now prevalent in India. That a superior education is essential to the reception of the Gospel is of course false. The mass of men are to be saved, though they will never have the leisure for high education. The apostles, though men of broad intellectual power, were with two marked exceptions not men of education. That education in India disposes men to Christianity may, also, be questionable. Knowledge of course destroys Hindooism, for Hindooism is based on false natural philosophy, and false cosmogony. But it does not necessarily make Christians. The great mass of educated natives are not Hindoos, or Christians, or Deists, or even Atheists. They approach more nearly to the English Secularists, who believe that anything *may be true*, but that meanwhile the object of life is worldly comfort, than any other English sect. But in fact they have no belief except that nothing is true, and that pleasure is pleasant. This may be a transition state. It may be that the lads who think thus are merely in the chrysalis condition, that their minds will one day emerge, trained, purified, Christian intellects. It may also be that this condition is one of putrefaction, that belief and faith and the power of moral progress, have been, not purned down to allow of a new and more beautiful growth, but killed, rooted out to perish for ever. The one solution of the problem is at least as likely as the other, and despite some splendid instances of individual excellence we have a limited faith in the Christian influence of education on the mass of Asiatics.

But this is only half the question. The true defence of Missionary education—beyond its unmistakeable influence on civilization—is that advanced by the Serampore Missionaries. The work of conversion must one day be effected by a native Apostle. Such a man to succeed, as for example Wesley succeeded, must unite to the subtle learning of the East the broad and accurate knowledge of the West, to the eloquence of his countrymen, the force, directness and purpose which spring only from Western cultivation. One such man, gifted with the powers of eloquence, of sarcasm, of hot burning pa-

thos so many of his countrymen have possessed, would do more to construct a Christian Church in India than a legion of Missionaries. It is only by the general and wide spread of Christian education that we can hope to find the man essential to the cause. We have not found him yet, but meanwhile in the midst of thousands of secularists one or two earnest able labourers have turned up, and acquired among their countrymen an influence for which Europeans hardly give them sufficient credit. It was to the highest class of the College, the natives learned alike in Sanscrit and in English, to that the Missionaries looked for the Agency which was to extend their efforts and the name of their Master through classes and in regions to themselves inaccessible.

They might have succeeded but for the clouds which settled down upon the later period of their lives, interrupting all effort, disheartening all supporters, unhinging and finally destroying the men themselves. To the Serampore controversy Mr. Marshman has devoted a considerable portion of his book. This, was perhaps necessary, for the controversy was for years the difficulty of the subjects of his Memoir, but the space devoted to a story which is to ordinary readers wearisome has injured the literary value of his work. Calumny however lives, and we will try in a couple of pages to give the history of a dispute which did more injury to the Mission cause than all the oppression of Government or opposition of the respectables.

The Missionaries, shortly after their arrival at Serampore had purchased some premises on the banks of the river. The first purchase was a house which was paid for Mr. Marshman says:—

"The ever-recurring question of the premises, the stock theme of the committee, was revived under a new phase. Since that subject had last been brought under discussion, the missionaries had offered to divest themselves of all interest in this property except as tenants, and this might have been expected to bar any farther allusion to the question. It was, however, again obtruded on public notice. Dr. Carey and his associates had always affirmed that the premises were purchased with their funds. This fact had not only never been questioned for thirty years, but had been confirmed by the committee of the Society, who had stated officially, in 1818, that "a considerable part of the funds derived from the personal labours of the missionaries had been employed in the purchase and enlargement of the premises on which they resided." This assertion was now repudiated by the advocates of the committee. It appeared from the journals and correspondence of the missionaries between 1800 and 1804, that sums which had been received from Mr. Fuller either in bullion or by bills, had in some cases been employed in paying off instalments due on the purchase of the premises. Hence it was inferred that the premises had been paid for by the funds of the Society; that the missionaries had acted simply as agents, and that they could not equitably claim any interest whatever in them. Dr. Carey and Dr. Marshman, having resolved not to

reply to these pamphlets, sent their explanations to Mr. Hope. They stated that the Society had made collections only for the support of missionaries, and for printing the Bengalee Scriptures; that the committee had never authorised the missionaries to appropriate the funds sent them to any other object. They drew, therefore, on the treasurer for these objects and for no other. With a portion of the monies thus received, they liquidated some of the obligations they had contracted on account of the premises, providing the sums progressively required for the support of the missionaries and the printing of the Scriptures from their own income. "We paid for the first house," said Dr. Marshman, "partly with the identical rupees received for bills drawn for other purposes, and replaced the sum as it was needed for these objects." The same explanation was given regarding subsequent purchases. If the Society had ever contemplated the purchase of premises, or given any instructions to that effect, the sums received from them would justly have been deemed to have been expended in that object; and the houses and lands would have been to all intents and purposes their property. In that case, however, Mr. Fuller would not have neglected to inform the subscribers of this appropriation of 3000*l.*, forming a fourth of their contributions, which he never did. He considered the purchase to have been effected with funds over which the subscribers had no control. As no such instruction or authority was ever received at Serampore, the immediate appropriation of any specific sums obtained from England was simply a matter of account. The constituent of a banking-house might with equal justice claim a lien upon any bill which his deposit had been used in discounting. As the missionaries never laid any claim to the premises, from first to last, and had resented every attempt to fix this charge on them as a flagitious slander, the question of the purchase money is one of comparative insignificance, though in the inflamed state of feeling in the denomination, it was easily turned to the purpose of detraction."

A larger purchase is thus described:—

"The missionaries were now straitened for accommodation. The Mission consisted of eight families, including Mr. Felix Carey, who had been accepted as a missionary by the Society, and had been recently married. The school had considerably increased, and the printing office required enlargement. The premises to the east of the chapel happened at this time to be offered for sale, and they were purchased without hesitation for 1420*l.*, though the missionaries did not possess the means of paying for them. They sought a loan in Calcutta, but without success, though they were willing to submit to exorbitant terms. At length, a Mr. Maylin, who had realised a considerable fortune as a river trader, and who now took a deep interest in missionary operations, advanced them the requisite funds at 10*per cent.* interest. The loan was gradually repaid from the proceeds of their labour; but for the property, they again made themselves trustees on behalf of the Society. The three parcels of ground, which henceforth formed the "Mission premises," and to which we shall have occasion to refer before the close of this work, had thus cost about 3000*l.*, or less than the amount of their net income for two years."

It is clear therefore that the premises were purchased entirely with their own money. The matter however seemed of little importance, for the Missionaries resolved that the whole should be held in trust for the Society, they remaining absolute managers. As an arrangement among men cordially united in one great cause this was an excellent

scheme. : As a purely business transaction it was very indefinite and clumsy. Sixteen years however passed without a word on the matter, when the Society, embittered by the independence of the Missionaries, suddenly claimed an absolute right of property. They asserted that the incomes of the three men were at their disposal, and only used by their sufferance. The Missionaries, Mr. Ward being the warmest of the three, repudiated this pretension. They declared that the property had been given by them to the Society, but with the reservation that the Serampore Mission, themselves and their nominees, should retain the management and control in perpetuity. They had given £50,000 to the Mission, and to declare them unsafe managers was an insult to which they would not submit. The point with them was not the property. They seriously contemplated flinging it up, and purchasing Aldeen, then for sale, and a much more convenient spot. But they were determined to prevent the Society from forcing on them unwelcome coadjutors. It was independence for which they strove, and it was their independence the Society were determined to upset. The answer was received in England, and then the storm broke forth. Every man who hated them, every man who envied them, all the young men who had with difficulty endured their over-strict supervision joined the chorus of detraction. For sixteen years the contest continued, varied of course every now and then by new interludes of bitterness, but these two questions, the property right and independence were from first to last the true basis of disagreement. Throughout, the Missionaries maintained the same position, that the property belonged to the Society, but that the independent right of management remained with themselves, the donors. When the Society finally determined that the premises should be sold, they submitted to the decision, and it was only from the accident that a son of Dr. Marshman bought them at the price fixed by the Society Rs. 16,500, that they were not entirely disconnected from the Mission.

As to the substantive matter of the controversy the Missionaries appear to us altogether in the right, though there was a degree of indefiniteness in all their business arrangements often found among men absolutely sure of their own motives. As to the manner in which it was conducted we entertain more doubt. There are traces of exasperated feeling throughout the correspondence. There was moreover an obstinacy, an utter determination to accede to only one form of arrangement, for which circumstances did not appear to call. It would have been wiser at any stage of the controversy to have terminated it by removal to Aldeen, or submit it finally to arbitration, than to go on fighting. At the same time there were full grounds

for irritation. The Committee at home were, with an exception or two, essentially low men, who thought espionage justifiable, and were aggrieved that a Missionary should out of his own money have a decent dinner or silver spoons. They demanded from Mrs. Marshman a list of her plate. They compelled the three to publish an account of their property, and then, as the account proved that they were poor and not rich, suppressed it. Still in spite of all this the controversy was to be lamented. From the moment the Serampore Mission proclaimed its independence, all trusts, premises, assistance, and every form of liability to the Society should have been at once brought to an end. The whole discussion if it teaches anything teaches this, that men of God if they have business to do should do it as business men, make every arrangement as hard and definite as if all sides were about to quarrel next quarter day.

Our notice of this Controversy reminds us that we have as yet said nothing of the book we are professing to review. The Controversy always excepted, which in its length and minuteness of detail is out of perspective, the work as a history is admirable. The author has gone to original sources for his facts, has collated them with an impartiality, almost strange when his known convictions are remembered, and has woven them into a narrative unsurpassed for lucidity and ease. The first chapter, for example, of the second volume contains in some fifty pages a really full history of the discussions which ended in the fall of the Company's territorial monopoly. No man who reads it fails to see how completely the liberal policy adopted, was due to the efforts of the religious world, how carelessly the Ministry of the day would have assented to a renewal of the old monopoly. A calm, almost a judicial, tone is maintained throughout, and the bitterest advocate of the ancient system would probably ask no fairer statement of his view of the discussion. The style is lucid to transparency, rising often, as in the following passage, to a not undignified eloquence:—

“The Serampore missionaries never considered themselves but as the simple pioneers of Christian improvement in India; and it is as pioneers that their labours are to be estimated. In the infancy of modern missions, it fell to their lot to lay down and exemplify the principles on which they should be organised, and to give a right direction to missionary efforts. They were the first to enforce the necessity of translating the Scriptures into all the languages of India. Their own translations were necessarily and confessedly imperfect, but some imperfections may be forgiven to men who produced the first editions of the New Testament in more than thirty of the oriental languages and dialects, and thus gave to the work of translation that impulse which has never subsided. They were the first to insist on the absolute exclusion of caste from the native Christian community and church. They established the first native schools for heathen children in the north of India, and organised the first college for the education of native catechists.

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and itinerants. They printed the first books in the language of Bengal, and laid the foundation of a vernacular library. They were the first to cultivate and improve that language and render it the vehicle of national instruction. They published the first native newspaper in India, and the first religious periodical work. In all the departments of missionary labour and intellectual improvement they led the way, and it is on the broad foundation which they laid, that the edifice of modern Indian missions has been erected."

As a biography the work is perhaps less perfect. We obtain every fact of the lives of the three men, but of the motives on which personal facts must always be founded, we perceive but little. Their characters may be ascertained from a steady examination of their deeds, but they are hardly to be gathered from the lives. The author knew them so thoroughly, understood so perfectly the relation between their impulses and their work, that the smaller traits, the personal habits, the hurried words from which outside observers gather the substance of character, have seemed to him redundant. There is, for example, throughout the work scarcely a reminiscence of their conversation, or their habits, though Serampore swarms with traditions as familiar to the author as the Annual Reports. As a whole we believe the book will live, as a history of effort such as the world, while men strive and fail, will never cease to regard with the keen interest of individual sympathy.

The result of that effort is still buried in the future. For the present, four generations of Missionaries while they have accomplished enormous good, have made little apparent impression upon Hindooism. They have abolished Suttee, infanticide, religious suicide, and human sacrifice. They have removed the legal compulsion to celibacy from widows, and restrained the worst developments of polygamy. They have enforced public decency so far as the timidity of Government would allow, and have raised the education of the mass into the most pressing question of Indian statesmanship. They have completely changed the tone of Indian Society, till from the most godless and reckless of communities it has become one of the most thoughtful, decent, and philanthropic. They have scattered throughout the land a doubt of the permanence of Hindooism, a question whether it is after all the formula by which Millions can consent to guide their lives. They have weakened the influence of the priesthood, and impaired the authority of caste. Finally, they have raised up a body of some 120,000 Christians, of whom all are free from the bonds of heathenism, and a large number patient and devoted, though weak, followers of their Master. Much remains to be accomplished, and Christians weary of waiting are sometimes inclined to cry, "How long, O Lord! how long." Others speculate with more or

less of judgment on the future, which all alike believe to be full of hope. With that strange instinct, for battle which is the root of the Teutonic character, the majority have become impressed with the idea that some battle of Armageddon, some tremendous and visible struggle between good and evil, is at hand, in which the giant fabric of Paganism will go down. That, we confess, is not our belief. We cannot forget that Christianity, though preached by apostles and testified to by martyrs, still struggled doubtfully with Paganism for six hundred years. Such, we fear, will be the case in India. Evangelization will proceed slowly through centuries in an ever widening circle. One caste will go, and another race will yield, until at length Christianity confident of strength, and abhorring evil with the violent energy which men who live in its presence always acquire, shall bid open idolatry to cease out of the land. It may live in holes and corners for centuries after that. It had not ceased in Italy in the twelfth century. But its vitality will be gone, and two hundred millions of men, their souls vivified by faith in Christ, their intellects cleared by a new philosophy, their perceptions widened by a novel privilege of travel, their frames restored by comparative chastity and full liberty of food, will commence that race in which the European world is now drawing rapidly to the goal. When that time arrives, and the Christian Bengalee looks back over the vista of years to the origin of that great change, the names of the Serampore Missionaries, first introducers of the Press, first successful teachers of the Gospel, will become once more to a new race, and in a different language, household words.

